HOME COMPUTING WEEKLY
AN ASGUS SPECIALIST PUBLICATION
March 12-18 1985 No.183 35p

Star studded issue!

Win: McCartney sweatshirts, games, albums. See p8

No Kidding! The ups and downs of Eddie Kidd's real life jump challenge

After the C5 it's the mobile micro!

Sinclair has confirmed rumours that it is working on a portable home computer — but it won't be on general release until next year.

Sir Clive Sinclair revealed that the machine will be based on both Spectrum and flat screen television technology and that it will be a 'no compromise machine'.

Radical change

He also suggested that it would have a radically new form of data storage which Sinclair Research is currently developing for the QL machine. This wafer drive will have as it's basis a complete silicon wafer which until now has only ever been used after being cut into sections or chips.

When ready for release the wafer will be able to store about half a megabyte of data. With battery back-up expected to last over a year and very simple copying facilities these wafers could make floppy discs optional.

The flat screen technology, also Sinclair developed, has only been seen in the portable TV which is about to go into full scale production. Sir Clive wouldn't admit that any breakthroughs had been made but he claimed that the portable would have a much larger screen.

No compromise

'Portables are a compromise at the moment', he said. 'They compromise on display and on back-up storage facilities. People will buy our machine because it's the best machine there is and it is portable as well'.

Acorn pledges to back home users

Acorn chairman Alexander Reid faced the press to explain the events leading up to Acorn's financial crisis and emphasise it's continuing support for both the BBC and Electron.

'We are absolutely committed to remaining in the home computer market,' Dr Reid stated. 'We have no intention whatsoever of withdrawing.'

He continued: 'We will certainly be continuing to sell the Electron at least through this year, and thereafter. The BBC has effectively had a price cut with the £50 trade-in deal which is now available.'

Dr Reid was refuting the rumours that Acorn would pull out of home computing. The Italian business machine company Olivetti has bought up 49.3 per cent of Acorn's shares to enable the company to resolve it's financial difficulties.

Dr Alexander Reid

And Dr Reid didn't envisage any problem with the continuation of the BBC scheme for supplying micros to schools. 'The BBC isn't frightened by international links,' he said. 'And Italian school markets are very high on our list of priorities.'

Inside your bolder, brighter, better HCW

Meet Betty — Our page three girl

Joysticks and interfaces — the facts

Warnes Wipers — Special offer

Gallup chart — The one to believe in

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HOME COMPUTING WEEKLY

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March 12-March 18, 1985 No. 103

SOAPBOX

Magazines are regularly criticised for the quality of their program listings

HCW has had its mistakes too, but there are certain steps which you can take to give yourself a better chance of success

When typing listings don't try to do too much at once Do it in little sections with a rest period in between typing Save the program to tape or disc each time you have a rest then if you make a mistake you haven't lost everything Use a ruler to make line following easier

Try to understand the listing style For example Spectrum listings are printed in HCW with all the graphic characters printed as underlined capitals Put your machine in graphics mode and then press the letter shown Commodore 64 listings often have control characters printed as reversed letters and symbols We try to put REMs near these to explain the symbols, so read them carefully before typing the line

We have tested all the programs in this and every other issue If you really can't get a program to work let us know but please remember that 90 per cent of errors are due to inaccurate typing I know — I have typed in lots of listings myself

Dave

If you have something to say why not send us your thoughts We will consider any points of view for Soapbox or for our letters page and we offer a prize for all those printed

COMING SOON...

Teach yourself jargon, our pull our guide to computer user language Sony MSX, is it really a Bit of a Hit — full user review Exploding characters, BBC utility programming feature Lots of reviews, bags of programs and oodles of news Read HCW first!

REGULARS

AMSTRAD CPC464

SPECTRUM

BBC

VIC-20

COMMODORE 64

SPECIAL FEATURES

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BASIC LIVING

by Jon Wedge and Jim Barker

The Computer Dictionary by Jon Wedge and Jim Barker is available from A & C Black, price £3 95

NEWS

MICROPAC
uSPEECH + uSLOT

Double talk

The battle for sales in the speech synthesiser market continues with Welwyn Systems releasing the Currah Micropac.

Currah Systems, who designed a number of speech synthesis units for home computers, suffered financial difficulties last year and the name and product were sold to dk'tronics.

The manufacturer of the system is Welwyn Systems, who had an agreement to sell the products if Currah ceased trading. As a result, there are now two companies selling Currah products under their own names.

The new Micropac is actually a repackaging of two previous products for the Spectrum computers. It contains both the uSpeech unit and the uSlot. The slot is needed if you want to add other peripherals to the unit besides the speech synthesiser.

Priced at just £25.95 the pack represents a saving of nearly £20 over the previous prices of the separate units. Both units are fully guaranteed by Welwyn.

Welwyn Systems, Bedlington, Northumberland NE22 7AA

Andrew Hewson 'Ted's Dad'

Technical tips

After being inundated with enquiries from players having problems with Technician Ted, Hewson Consultants has issued a set of tips for serious players.

The game, featured in a recent HCW competition, is set in an office environment in which you control Ted as he tries to get through a day's work.

We too have had a number of enquiries about the game, and we will soon be publishing the map in our Ventures column.

For those who can't wait, here are the tips from Hewson Consultants.

All tasks must be done in the right order, and you must work out the order for yourself. Technician Ted has a full event processor so that rooms change as the game progresses. If a room looks easy or empty, then it is probably not the time to attempt the task within it.

Technician Ted graphics are ultra-smooth and collision detection is exact, so that starting position is even more important than in ordinary platform games. The PAUSE facility can often be used to ensure that the correct starting position is used.

Similarly a jump can be made from a precise position by first jumping vertically, and then pressing left or right (as appropriate) whilst Ted is still in the air.

Time is of the essence. Many rooms have been timed so that the skilled player can pass through without pausing provided he makes the right moves from the correct positions.

Similarly when a task has been completed it can sometimes be faster to loose a life deliberately so that Ted is reset to the required exit.

The order in which tasks must be completed is roughly the same as might be expected during an ordinary working day.

Rest assured, the game can be completed within the time limit!

Hewson Consultants, Hewson Hse, 566 Milton Trading Est, Milton, Abingdon, Oxon OX14 4RX

Deal sealed on war games

[illegible]

M C Lothlorien, Sle Park Ln, Poynton, Cheshire SK12 1AB

Argus Press Software, 2-2 Regent St, London W1R 3FB

Roger Lees, M C Lothlorien director ... and Mike Cohen

Software Selection New Releases

Firebird is offering a Porsche 924 to the winner of the new game Gyron Due for release next month, the game deals with the destruction of a computer, not yours — the enemy's!

Claimed to be 'the most demanding game yet for the Spectrum', you will need to combine strategy with timing and manual dexterity In the Gold series, the game will cost £9 95

Released on 23rd February, Dukes of Hazzard, from Elite, will try to follow the success of Airwolf. As you might expect, the game centres around the escapes of Bo and Luke Duke in their General Lee car

There are nearly 100 animated frames, and the car can be seen jumping and tumbling all over the VDU The first program will be for the 48K Spectrum

Other new programs are

Emerald Isle	Amstrad, C64, BBC, MSX, Spectrum	Level 9	£6 95
ACE	C64	Cascade	£9 95
Xargon Wars	C16	Gremlin	£6 95
Hypercircuit	C64	Alligata	£7 95
Master of the Lamps	C64	Activision	£10 95
The Music Studio	C64	Activision	£14 99
Web Dimension	C64	Activision	£10 99
Pastfinder	C64	Activision	£10 99
Rock 'n' Bolt	C64	Activision	£10 99
Great American Cross Country Road Race	Activision	£10 99	
The Tracer Sanction	C64 disc	Activision	£19 99
Mindshadow	C64 disc	Activision	£19.99
Royal Quest	Spectrum, BBC	Adventure Zone	about £4
Berks	C16, Plus 4	CRL	£6 95
Interdictor Pilot	Amstrad	Supersoft	£17 95

Speak to a star

If you've ever wanted to interview a computer personality Micronet 800 will soon be giving you the chance

Due to start on Wednesday 20th March, their Prestel-based service will give you the chance to talk to such personalities from the comfort of your own home, using your computer and a modem

The service will be fully interactive You type a question on your computer, it's transmitted down the line and the interviewee types an answer which is sent back to you

Other users of the system can read the questions and answers in just the same way CB users can hear other peoples conversations

Here's the 'diary' of celebrities hanging on the telephone

20 March	Michael Feldman	4 Buffs on 4
27 March	Derek Meakin	Database Publications
3 April	Guy Kewney	Computer journalist
10 April	Mike Singleton	Games author
17 April	Paul Duffy	GOSH
24 April	Nazir Jessa	Watford Electronics

The sessions will each last an hour, from 7 to 8 pm — when phone calls are at their cheapest

Micronet 800, Herbal Hill, London EC1

Computer health

Rumbelows, the electrical retail and television rental company, has begun operating a new service. Called Service Clinic, customers will be able to have electrical appliances repaired very quickly and the service extends to some makes of popular home computers.

There are 40 Service Clinics throughout the country, all of which are purpose built. Customers can either drop their equipment in or have it picked up at their home. Opening hours are 8.30 am to 6 pm.

Rumbelows, 10 Doughty St, London WC1N 2PL

Expand your memory

Commodore 16 and Plus4 users will soon be able to add an extra 64K to their machines

Micro Component Trading has developed a 64K RAM card which, it is claimed, will be totally compatible with all software which runs on the standard machine

Another feature of the machine is that it can be fitted without any modifications to the main PCB and even leaves the cartridge port free for other peripherals

Expected to cost about £60, including post and packaging, it will give users a total of over 60K user memory in text mode and over 48K in high resolution modes

If you want to know how you use all this extra memory, you'll be pleased to hear that there will be special software developed by other companies such as Artic, for the system Just imagine the number of locations you can have in a 60K adventure!

Micro Component Trading, Fishers Lane, Norwich, Norfolk, NR2 1ET

NEWS

Winners, all

There were seven differences in our New Generation spot the difference competition.

These are the names of the 65 winners who will each receive Shoot the Rapids and Cliff Hanger. Sandra Gough, Mitcham, David Porter, Rochford, Billy Bendon, Leyton, Kevin Whitfield, Haverhill, Lee Russell, London, Chris Whitehead, Bolton, John Cain, Canning Town, K F Hughes, Bristol, Kevin O'Connor, Airdrie, Angus Crowther, Nairn, Darren Marshall, Lewisham, A S Wheeler, Crewton, Adrian Rea, Burnley, Rekoms Filip, Belgium, R G Harris, BFPO 29, D Penaluna, Newcastle, John Flynn, Birmingham, Richard Hirst, Huddersfield, Stuart Preston, Carlisle, Dennis Richards, London, M Ridler, Tamworth, S Eaton, Nottingham, J Kingsbury, St Athan, W Chalk, London, Philip Otton, Exeter, D Roebuck, Lymington, K W Peterson, Grassendale, W Fairbairn, Fort William, W R Drinkwater, Portsmouth, Wayne Ellis Byrom, Manchester, James Lam, Streatham, Gary Chapman, Barnsley, Mark Pepperrell, Feltham, Karen Rolph, Heaton, Colin Nowell, Manchester, Jason Chapman, Haywards Heath, Robert Anderson, Hebburn, P Marsh, Warlingham, A F Turner, Howe, Basingstoke, P J Ashforth, Hull, Martin Thomas, Swansea, R T Russell, Dagenham, Alan Carnegie, Strathclyde, Angelo Scerri, Luton, Ving Chhoy, Birmingham, Linda Cook, Lowestoft, A F Judge, Watford, D P Reynard, Bradford, Joseph Toomey, London, Jonathan Biddle, Leiston, Ian Sweeney, Croydon, S Chua, Birmingham, Robert Stuckey, Bristol, D Rehm, Hampton, Dale Russell, Warminster, Darren White, Whitstable, R K Sisson, Nottingham, Kayvan Moghadam, London, C Crane, Stoke-on-Trent, Stephen Ewer, Suffolk, Paul Wareham, Gerrards Cross, T J Williams, Rushden, Nigel Richmond, Chesterfield, Paul Roberts, Cardiff, Robert Stokes, Eccles.

Whizz kids '84

The prizes in the John Menzies Young Programmers of 1984 competition will be awarded this month and will total £15,000-worth of computer equipment. It will be distributed between the winning teams and their schools.

The top three schools are in Suffolk, Falkirk and Nottingham and there are also 20 regional finalists who will receive £250-worth of equipment.

The entrants were asked to write a computer program to find the missing numbers in a sequence. The computer also had to report what it was doing whilst searching for the answer, so an observer could follow the process.

Robert Black, retail managing director of John Menzies, said: "All the schools taking part obviously put an enormous amount of effort into tackling the problem. It has been very difficult choosing the final winners."

John Menzies, Hanover Buildings, Rose Street, Edinburgh EH2 2YQ

Computer health

Rumbelows, the electrical retail and television rental company, has begun operating a new service. Called Service Clinic, customers will be able to have electrical appliances repaired very quickly and the service extends to some makes of popular home computers.

There are 40 Service Clinics throughout the country, all of which are purpose built. Customers can either drop their equipment in or have it picked up at their home. Opening hours are 8.30 am to 6 pm.

Rumbelows, 10 Doughty St, London WC1N 2PL

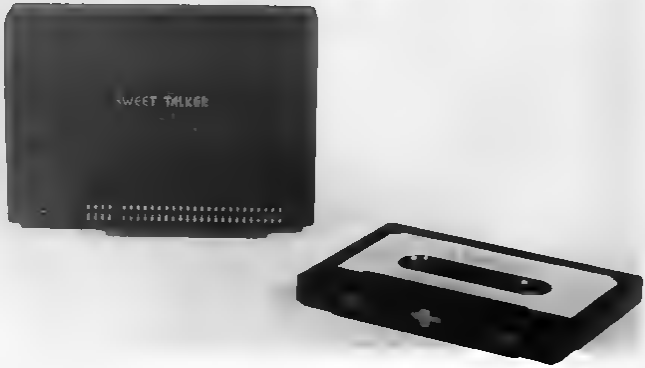
Cheap talk

Cheetah Marketing's speech output device for the Spectrum — the Sweet Talker — has been reduced in price to £24.95. According to Cheetah, this is in line with the company's policy to provide high quality products at the lowest possible prices.

Cheetah Marketing claims that the Sweet Talker is an elegant implementation of the allophone approach to speech synthesis which provides users with powerful, comprehensive and wide ranging speech output facilities.

The package includes the plug-in module, a comprehensive instruction manual and a demonstration cassette.

Cheetah Marketing Ltd, 24 Ray St, London EC1R 3DJ



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STAR GAME

Basketball fans should love this simulation of the game — It has some of the most lifelike animation ever seen in a sports game —

■ To see your player spin 180 degrees, dribble past the defender and shoot close in, gives a vicarious thrill quite unmatched in any other sports simulation I've seen

■ All this adds up to one heck of a great game.

Bob Chappell
Personal Computer News

PERSONAL COMPUTER NEWS HIT!

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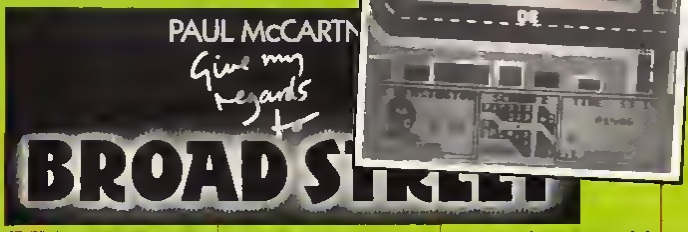
BROADEN YOUR HORIZONS

Albums, sweatshirts and games on offer this week in our Give my Regards to Broad Street competition from Paul McCartney



This week's competition will appeal to everyone — music fans, filmgoers and, of course, computer games players. There are prizes for everyone too — sweatshirts, records and game cassettes.

The six first prize winners will each receive a sweatshirt, a Give my Regards to Broad Street album by Paul McCartney, and a copy of the game, which is based on the film. The 50 runners-up will each receive a copy of the game for the Spectrum or C64 computers, so even the runners-up prizes are worth nearly £8 each.

Both the film and the game are based around problems which arise when a tape of Paul McCartney's new single goes missing. The master tape was lost and in order to replace it he has to collect all the members of his band and 10 lost chords from around the London streets.

There are 943 screens in all to cover the full map of London, but as the members of the band always use the underground, you aren't likely to meet any of them on the streets. You are dependent upon your trusty souped up Ford Prefect, your knowledge of the band and their habits and, most of all, your wits.

The game screen is split into four separate areas. The major part shows the map of the streets along which you are travelling. Below, there is information about the character you are chasing, a linear scan of the streets and information about the nearest underground stations. You score by collecting notes from the tube stations before your friend emerges.

This is a complex game which, according to Mind Games, requires a good deal of thought and planning besides nimble fingers. If you want to win the game and the other goodies you'll have to brush up on your knowledge of Paul McCartney and the Beatles.

There are six questions to be answered. In most cases they require just a word of two and most of them are names of one kind or another. We can't make it any easier, so have a try, you've nothing to lose.

Questions

1 Which famous cartoon character starred alongside Paul McCartney in a recent pop video?
2 What is the name of Paul McCartney's wife?
3 Name the capital city where Broad Street is located?
4 Name all four Beatles
5 Where was Paul McCartney born?
6 Which female video star and pop singer co-stars in Give my Regards to Broad Street?

How to enter

Study the questions carefully and decide on the answers. Most are names of one kind or another, and in most cases just first names will be enough.

Write your answers on the coupon in the space provided. Fill in the coupon clearly and then write your name and address. Please print clearly in block capitals. We use the coupons to send your prize.

Send your entry to Broad Street Competition, Home Computing Weekly, No 1 Golden Square, London W1R 3AB. Closing date is at first post on Friday 29th March, 1985.

You may enter as many times as you wish, but each entry must be on an official coupon — not a copy — and sealed in a separate envelope.

Prizes will arrive from Argus Press Software within 28 days of the publication of the issue containing the results of the competition.

The rules

Entries will not be accepted from employees of Argus Specialist Publications, Argus Press Software Ltd and Alabaster Passmore & Sons. This restriction also applies to employees families and agents of the companies.

The How to Enter section forms part of the rules.

The editor's decision is final and no correspondence will be entered into.

Broad Street Competition

Entry Coupon

Name _____

Address _____

_____

_____

_____ post code _____

Computer owned: Spectrum _____ C64 _____

Answers

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

Complete clearly and fully — if you are a winner this coupon will act as a label for your prize. Post to Broad Street Competition, Home Computing Weekly, No 1 Golden Square, London W1R 3AB. Closing date: first post Friday 29 March 1985. Don't forget to follow closely the advice in the How to Enter section.

A L I E N

Commodore User

"However well you do, the game remains exciting, nail biting stuff 'In space no one can hear you scream' the blurb says. My neighbours aren't so fortunate — I've been giving them a hard time. But who needs neighbours with entertainment like this"

Personal Computer World

"The screen display is split into three areas: a map of each of the ship's three levels, a report monitor which displays the ship's and crew's status (who's next on the Alien's menu), and a command monitor. The command monitor presents you with the instructions available to you, these can be selected with a joystick. This is a particularly nice feature of the game as it eliminates typing errors.

The Alien you encounter can either be a timid beasty or a blood-curdling monster, and no doubt the intensity of your screams will reflect this.

From beginning to end you're looking over your shoulder"

Games Computing

"The game follows the track of the film quite closely, with a large number of variations. (If you knew exactly what was going to happen the game would get very boring.)

The game is basically of a strategy type with adventure bits thrown in as well"

Your Commodore

"The novice will require a few attempts to become accustomed with the game but the authors have thoughtfully provided a short scenario option for the space-rookie.

The cassette is accompanied by a booklet giving clear instructions for play and a summary of the film. To appreciate the game's subtleties, it will help to have seen the movie which would also give the player some idea of what to expect. I hid under my cinema seat first time round — the game is true to the film. Only the bravest players should confront the Alien in the small hours of the morning. I'll say no more — the hairs on my neck are bristling again"

Home Computing Weekly

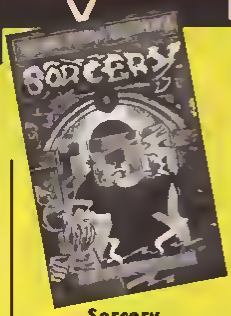
"At first I was disappointed as Alien is neither wholly adventure nor arcade, but after playing several times I can say that this game grows on you. The sound effects add to the suspense as does the sudden arrival of the monster"

ARGUS PRESS SOFTWARE LTD
Liberty House 222 Regent Street, London W1R 7DB

Commodore 64

Now available for SPECTRUM 48K

SOFTWARE



Sorcery

This super game, graphically in a class of it's own, has forty different screens

Aptly described as a fast moving adventure, with the minimal amount of dialogue because there's just not enough time for reading

The art work involved in POKEing the characters and locations to the screen is phenomenal These are undoubtedly the best graphics I have seen on any micro, tantamount to being a feast to my cathodic eyes

Haunting music accompanies the action, in itself a pertinent example of how to extract the full potential from the Amstrad's powerful sound commands All haunting imagery smacks of artistic skill and imaginative forethought which have gone into the compilation of this unique program

As in traditional adventures, you have to collect and drop articles along the way All of this is done graphically, before your very eyes The smooth fast movements are akin to the concept of cartoon animation and need to be seen to be believed

Your objective is to release all the sorcerers from captivity within a fixed time limit, whilst avoiding various spooky looking nasties who sap your energy This game requires fast reactions and dexterity with the joystick

You will be riveted to your seat right from the opening titles Instructions and several screen pictures are shown on the elaborate cassette inlay

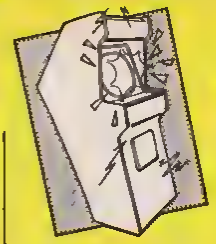
Buy this one whilst stocks last! **D.H.**

Price: £8 95

Publisher: Virgin Games Ltd

Address: 61-63 Portobello Rd, London W11 3DD

AMSTRAD



Indiana Jones in the Lost Kingdom

The cassette fast loads so Indiana can pass quickly into the Lost Kingdom Once there you, or him, are on your own

Your objective is to work your way through six rooms gaining as many points as possible and retrieve an artefact somewhere within the rooms How to do this nobody knows You have to work out the rules and find out how to control Indiana by experimenting

The cassette inlay card tells you that you can play with one or two players and select one of three skill levels You also choose where to begin Naturally I tried skill level one and started in a different room each time

As you are not supposed to know the rules it's a bit difficult to describe the action without giving anything away However, action there is On one screen I eventually realised that I had to dash from one side to the other, jumping on moving platforms and avoiding attacking thingies Another screen had me avoiding an ever increasing number of bouncing balls while the screen gradually shrunk in size On one or two occasions I knew what I wanted to do, but couldn't figure out how to from the joystick

The screens, or rooms were varied and one never knew quite what to expect The graphics were okay, but the sound became a bit monotonous aftes a time You could take a tea break playing this game, pressing the space bar paused the game and pressing f7 resumed the action This is also useful for those who get out of breath quickly Generally an average game, a bit pricey, capitalising on the success of the film **L.C.**

Price: £9 95

Publisher: Mindscape

Address:

C64

Firebug

Engine driver, pilot or fireman are all careers young children dream about, but being a fireman often holds first place

Firebug uses a screen layout similar to Snapper, multi-floors with interconnecting ladders, but with far more happening, three different screens and increasing levels of difficulty with each round

The game takes place in a petrol warehouse where a firebug is running around lighting fires. The player takes the part of a fireman who has the job of collecting the drums of petrol and dumping them safely into a water tank

There are fire extinguishers scattered around the complex and the fireman can carry one to put out the fires, but he can't carry drums as well as extinguishers, so you takes your choice

If the fires are allowed to spread to the drums they explode and raise the temperature in the building by 10°C If the temperature reaches 100°C the rest of the drums explode and the warehouse fills with fire and smoke to end the game

There are various dangers to which the fireman is exposed If he steps on a fire or runs into the firebug he will fall to the ground floor and have to start again, while smoke is yet another danger to avoid

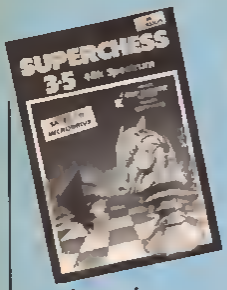
Instructions are adequate and the game is available on tape or 40/80 disc There are freeze game and sound on or off options along with provision for joystick control. **J.D.**

Price: £9 95

Publisher: Acornsoft

Address: Betjeman Hse, 104 Hills Rd, Cambridge CB2 1LQ

BBC



Superchess

In order to test this program fully, I set it up in opposition to Mikro-Gen's Masterchess II on the Spectrum

Superchess allows you to set up the board to your own requirements, and plays on several levels, each with a different response time varying from pretty instant, to 24 hours! The screen display is very acceptable, with the board viewed from above Interestingly, when left to it's own devices, each program produced the same opening moves on level 1, though it was on level 3 that I decided to play them against each other It started out being fun typing their respective moves into each computer

Masterchess took about 30 seconds to produce it's moves, whilst Superchess produced a move after about three minutes' thinking time, and that is the way it continued After three hours, I was bored to death Masterchess on the Spectrum was just as quick, and Superchess was still grinding away At bedtime, there was no sign of a winner, so I switched off! But one thing was interesting, at one stage Masterchess declared that Superchess had made an illegal move, and it appeared to be right — either that, or it had set it's board out incorrectly

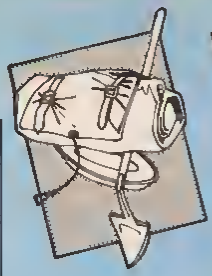
All the usual features are here, recommended moves, self play, analysis mode and insights as to how the program works A handy feature for green screen owners is the facility to change screen colours Acceptable, but rather slow if you want a real challenge **D.M.**

Price: £9 95

Publisher: CP Software

Address: 10 Alexandra Rd, Harrogate HG1 5JS

AMSTRAD



Castle of Terror

If you like graphic adventure games set to spooky music this might be for you

The cassette comes with three pages of instructions although the precise objective is not given 'What you do is up to you' says the blurb As the title page shows a Dracula figure, putting a stake through his heart wouldn't be a bad idea

The adventure loads quickly and the screen has a hi-resolution picture in the top half with your input and text replies at the bottom One feature is it's English style input This adventure allows you to enter 'vocab' to see a list of verbs accepted by the computer However I don't seem to have the knack of communicating in pidgeon English When I enter 'Knock on door' the computer responds 'You do not have it' although knock is in the vocab! I therefore tend to have many inane conversations with the computer

The usual adventure commands are provided, look, inventory, examine etc In addition you can call up the number of moves you've taken and your score and you can quit and restart the game at any stage

I think keen adventurers would get several hours of gaming out of Castle of Terror The graphics are good, there are appropriate sound effects at certain stages and some of the characters are animated

Price: £9 95

Publisher: Melbourne Hse

Address: Castle Yard Hse, Castle Yard, Richmond TW10 6TF

C64

Battle for Midway

Wargaming is a highly respected and long established traditional boardgame Usually, a real wartime battle is refought, but of course, the outcome can be different The problem is that you need someone to play with. PSS has the solution here which appears to stick to the traditions of the game, whilst adding the sophistication and facilities of the home micro and a very devious partner!

Once loaded, the map of the battle zone is shown in multi-colour On it are shown the American defenders in the shape of two task forces, plus the base on Midway with it's airfield, and two search planes A large cursor can be moved about the screen and when positioned over a unit, a report on states can be called up Additionally, if there are planes, they can be launched or landed On the learning level, some helpful dotted lines show the route of the Japanese

By moving your cursor and punching keys, you can get your planes to search When the Japanese are eventually discovered, you can see them indicated You must then launch your attack if they don't wipe out your airfield first!

When an attack is launched, the screen displays the scene, and animated aircraft and ships do battle royal You even join in using your gunsight and joystick! Afterwards you count the cost, and if you happen to have left your planes in the air too long, then it's curtains for them and probably for you!

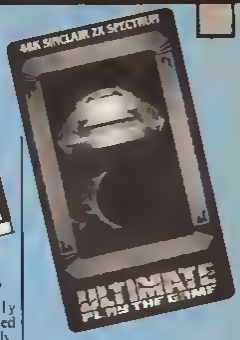
Super graphics and sound Great fun. **D M**

Price. £9 95

Publisher: PSS

Address: 452 Stoney Stanton Rd, Coventry CV6 5DG

AMSTRAD



Alien 8

It has to be admitted that each game Ultimate brings out is rather special This is, of course, no exception and really has to be seen to be believed

It isn't that the games are so original or that they are such good games and cry out to be played again and again

This game is based upon the popular Knight Lore format and has you moving a small, cute robot in a 3D landscape which is the interior of the space ship Your mission is to keep the human inhabitants alive during their cryogenic suspension, find and recover the thermolec valves and make sure that all the humans are alive and in the right condition to be able to land the ship

To stop you there are a host of difficulties including trap doors, plungers, egg shells, moving floorways and alien guards

The games lack a little colour in particular, it would be nice to have the varieties of nasty identified in some colour, however, this formula gives you the extra problem of having to identify the nasties before they get you

The alien's speed of movement varies with the number of moving objects on the screen but this doesn't detract from the enjoyment I was a little disappointed about the instructions, which leave rather too much to be discovered for my liking Still a winner though **J.B**

Price: £9 95

Publisher: Ultimate Play the Game

Address: The Green, Ashby de la Zouch, Leics LE6 5JU

SPECTRUM

Software Star

This is the new game from Kevin Toms, designer of Football Manager, and as such follows the same sort of idea. You are given a year to launch and run a successful company.

In your first year your target figure is £10,000 and if you are successful your board of directors will expect even greater things of you. Your job as managing director seems to be a one-man affair. As well as starting new products you also have to sort out launch, advertising and progress whilst dealing with the management of the sales and development. Along with your financial worries it's enough to give you ulcers.

The instructions to the game are adequately set out on the insert to the cassette. Unfortunately it's not a fast loader, so it's a case of setting it loading and having a cup of tea.

Once loaded the graphics consisted of pages of script about the state of play with the occasional graph. The high-point of these is games chart, where you can watch as your game or games climb and hopefully trigger the No 1 page reach the pinnacle of software stardom. Sound is practically non-existent. Overall the game is fun to play a few times, but not as addictive as the package would have you believe. **M.W.**

price: £7.95

publisher: Addictive

address: 7a Richmond Hill, Bournemouth, Dorset BH2 6JE

C64

Stockmarket

A financial game. After an age of loading in the slow mode, the screen clears to show a representation of a terminal screen, complete with an acoustic modem on and through which you receive your financial gen.

You start with £1000, and by careful buying and selling in four types of mining shares — gold, lead, tin and zinc — you can make or lose money as their prices vary on the market. If you run out of cash, you can acquire a limited loan which must be repaid in 10 turns, plus interest at the going rate.

Other forces are at play however, as a rather splendid rendition of a line printer shows at the foot of the screen. Sell a bundle to buy into gold for example, and before you can lay a hand on your shekels, the taxman leaps in and grabs his share.

Up to six players are catered for, and the aim of the game is to make a million first. Playing on your own isn't much fun, and whilst playing with a friend is better, it still isn't wildly exciting.

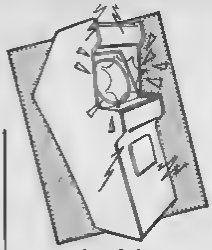
Perhaps this is a result of a limited number of random forces at play. Once you've had the attentions of the taxman, and watched the market vary, you've about seen the lot. Don't expect a quick result either. We played for over an hour, and in that time I only amassed £655,000 — chance would be a fine thing! **D.M.**

price: £8.95

publisher: Amsoft

address: 169 Kings Rd, Brentwood, Essex CM14 4EF

AMSTRAD



Roland Goes Square Bashing

This is an absolute gem to which the inlay card with it's dubious spelling doesn't do justice!

Imagine taking one size of Lego tile and using lots of tiles, building up a series of structures by making linked steps and platforms which twist and turn round and upwards. Each succeeding structure is more complex than the next, with turns and holes which are invisible from a viewing angle above and slightly to the side of the construction.

This is what you see on the screen, but in glowing multi-colour and 3D! Using keyboard or joystick, you must guide Roland, who had metamorphosed into a cubic little chap with arms and legs, up from the bottom to the top. Beware, however! Even whilst he is standing on the tile, it begins to decompose, and if you wait a fraction of a second too long, the luckless Roland plunges stylishly down behind the lettering at the foot of the screen to oblivion.

The first few screens are fairly easy, but after about seven, the going gets really tough! You have to be very quick and clever to suss out the best route. At least you can practise, because access to any level is built in, as is a high score routine.

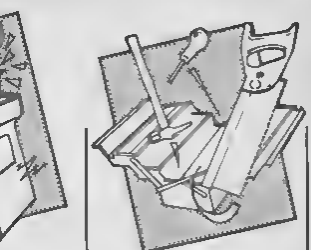
I liked the concept, the graphics and the sound, and found this refreshingly different challenging and addictive. The inlay card and instructions let it down however. They don't describe the game adequately. Highly recommended, though pricey. **D.M.**

price: £8.95

publisher: Amsoft

address: 169 Kings Rd, Brentwood, Essex CM14 4EF

AMSTRAD



Titan

Titan is a machine code utility/development program of the type generally referred to as a monitor. This allows you to examine code already written either by yourself, or, indeed, by a commercial programmer.

Slightly smaller than 5.5K, Titan can be loaded almost anywhere in RAM allowing you to examine non-relocatable code to be run in the area for which it was written. Once the two are loaded, you activate Titan by a USR call. The display in command mode is of the 'front panel' variety which shows the current state of all the Z80 registers, what they contain, and what the address in memory pointed to by the register, contains. In addition, there are four 'windows' on memory which you can define allowing a constant 'peek' into the areas used by your program. Flags are also displayed.

Instructions for driving the program are contained in the accompanying manual, and a brief run down of the commands is also given on a reference card, a good idea this, since there's nothing more frustrating than to have to dive into a complex manual in order to find a single command. Having said that, this is not really a package for a beginner. You must understand the principles and language associated with Z80 code in order to use it, and be fluent in hexadecimal notation.

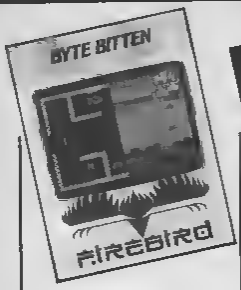
Given that, all the usual facilities for disassembly, searching, modifying and single stepping are here, and output can be directed to a full size printer. **D.M.**

price: £10

publisher: Tomorrows Dream Software

address: Richmond House, 16 Sydenham Rd, Cotham, Bristol BS6 5SH

SPECTRUM



Byte Bitten

Strange name for a game, I thought, until I realised that this is a game about a game

You play a computer-addicted child who has only one thing in mind, the playing of computer games In a scenario that is probably just a little too close to real for some families, the young player has first to do chores before being allowed to play the game

This game is therefore a fusion of two games in one The first part involves the chores being done and is based around the maze-searching idea You explore the rooms in a house and have to find the right object to do the chosen task

Unfortunately the identification of the objects is rather difficult For example, decorating involves the collection of a picture representing a flower on a roll of paper — at least that's what I guess it is

If you manage to retrieve the correct object then you are allowed to have a game on the computer The game concerned is a helicopter shoot-and-kill game You take off from the aircraft carrier and then destroy as many of the enemy as possible before landing to refuel

There are a couple of difficulties Firstly, the radar screen has each helicopter plotted as a single dot and you tend to go a little myopic just looking for them Secondly you can't change speed to overtake the nasties

The price forgives all of these problems though **J.B**

price: £2 50

publisher Firebird

address: Wellington Hse, Upper St Martin's Lane, London WC2H 9DL

SPECTRUM

Buggy Blast

This is one of the best of the blast-everything in-sight games I have seen for a long time

What makes the game so remarkable is the quality of the graphics — the most colourful and interesting I have ever come across for the Spectrum.

The story is fairly easy to understand you are trying to kill 20 of the enemy aliens before your buggy is totally disabled You have two types of weapon — twin Photon lasers which you control with thekeys or the powerful Xion Phaser which we used to call smart bombs in the days gone by. There is a large store of photons for you to use but you've only got 10 Xion Phasers for the entire mission, so don't waste them

The 3D trench along which you are travelling is reminiscent of Star Wars, but there are a whole range of different types of enemy to combat Some emerge from side doors, some hover in front of you and some are orbiting above the planet You are warned of the approach of the orbs as they can be deadly and finish the game if they hit you just once

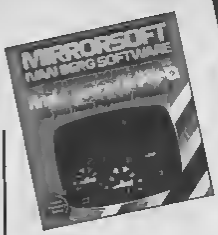
The best graphics are shown when you are docked and ready to take off again The use of colour and flashing is excellent Sound is used fairly well too and the controls are responsive The instructions are excellent with plenty of details, but the greatest omission is the joystick option **J.B**

price: £5.95

publisher: Firebird

address: Wellington Hse, Upper St Martin's Lane, London WC2H 9DL

SPECTRUM



Know Your Own Psi-Q

It's only fair to warn you that this review was written by a sceptical, anxious extrovert who shows no evidence of extra-sensory perceptiveness! If you already suspected this, then you may well be interested in this package

Via a series of questionnaires, your receptiveness to the idea of psychic ability is assessed together with some aspects of your personality Following this, a second program is loaded which will then give you the opportunity to relax by synchronising a pulse with your heart rate, and displaying some patterns to watch on the screen The computerised pulse gradually, almost imperceptibly, slows down, and your pulse rate should follow

You are then ready to take the tests You may either play guess the playing card, predict the colour, and two grid games where you have to locate either the smiling face or the hidden submarine You are encouraged to do this 50 times for each option in order to produce a result of some statistical significance Having done so, an analysis of this significance is given, as is the opportunity to save the results of your test to tape You are encouraged to use the games often as the accompanying manual assures that practice improves performance

Though written in BASIC, the standard of programming and screen presentation are excellent, quite a joy to behold, though the patterns used for relaxation are spoiled by attribute problems on the Spectrum's screen

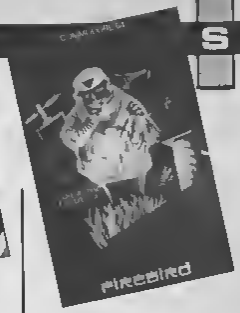
I don't believe a word of it but then you know what I'm like don't you? Pricey! **D.M.**

price: £9 95

publisher Mirrorsoft

address: Holborn Circus, London EC1P 1DQ

SPECTRUM



Demons of Topaz

This addition to the Firebird Gold range is a space epic from down under It's the ambition of a young Australian space pilot called Ozzy to travel the universe To achieve this ambition Ozzy must first visit the asteroid Topaz and locate the seven crystals of Topaz These will provide his old ship with sufficient power to warp it's way from one side of the universe to the other

Moving around the asteroid's surface causes the screen to scroll sideways in the appropriate direction Holes are to be found at regular intervals on each level, stepping into one of these allows Ozzy to descend further into the asteroid There are eight levels in all When inside the asteroid Ozzy doesn't wear his space suit and so you must keep a close eye on his oxygen level By returning to the asteroid's surface at regular intervals Ozzy's oxygen supply can be replenished

The asteroid contains many Manic Miner style hazards, e g dissolving floors and poisonous plants It also contains the guardians of the crystals, the Demons of Topaz These nasties don't awaken until you have found the first crystal, but when they do you are in for some fun Fortunately Ozzy brought along his Tirrang, a high-tech development of the boomerang Skilful use of this device keeps the demons at bay

For one of the Gold edition titles, I was rather disappointed with the lack of detail in the characters The animation is sluggish and the musical introduction must have been written by a tone deaf wallaby **J B.**

price: £5 95

publisher: Firebird

address. Wellington Hse, Upper St Martin's Lane, London WC2H 9DL

C64

The House of Horrors

The House of Horrors is an elaborate on-screen maze and puzzle game. The screen is laid out with the maze occupying the major portion, a communication window across the bottom, and an illustration/puzzle window top right. At the start, a finely drawn, mysterious looking house is revealed, and the solution to three puzzles allows you inside.

You are then shown as a tiny animated stick man at the entrance to the maze. Using cursor keys or joystick you steer towards the exit, but you're unlikely to get far! Seemingly independent of your location, your path is barred by a number of obstacles. The Egotistical Gorilla demands you spot and remember his name, the Mad Mathematician — aren't they all? — requires some instant arithmetic, the Snake Pit, the finding of a ladder, an unpleasant looking gargoyle sets a version of Hangman, and given the choice of three doors, you're bound to choose the wrong one! There are more, and each time your fail, it's back to the beginning again. This is level 1!

A goulish monophonic tune accompanies the game, which, with the exception of picture window, uses very small graphics. Visible on the green-screen, they almost disappear using the colour modulator. The major pictures are, however, quite classy.

On tape, the game is saved in normal and speedwrite modes, the first I've seen. Doubly sad therefore to report that the quick version wouldn't load. Overall, only adequate, about the standard of a £1.99 Spectrum game.

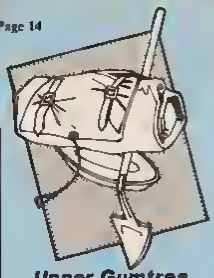
D.M.

Price £6.95

Publisher Solid Software

Address 35, Melville Rd, Bispham, Blackpool FY2 9JF

AMSTRAD



Upper Gumtree

Richard Shepherd achieved success with Urban Upstart and this game will do his reputation no harm at all. This huge adventure offers a hundred locations, many illustrated in multicolour mode.

The story line is original and most amusing. Professor Blowitovitz, a rather eccentric bloke, has moved into the manor at Upper Gumtree. With him he brings a large number of strange devices. After some time, bizarre things start to happen and finally the mad Professor delivers his ultimatum. Your task is to save the earth from his fiendish machinations. To assist and complicate your task, you encounter sundry people including the helpful Emma and the kleptomaniac Wally.

The standard of programming is very high with rapid graphics routines giving good quality pictures. Raster interrupts are used to give both text and pictures to good effect. The textual descriptions are nice and detailed and better than most I've seen. Many of the accepted techniques are used including a real time element — even the colours of the pictures change as night approaches. The interacting characters have a degree of artificial intelligence.

The game is full of amusing problems and interesting ways to die. In all the atmosphere develops well and its easily holds one's interest. To make things less tedious, you can select the speed of printing, and disable the graphics. The parser is quite flexible and allows multiple commands.

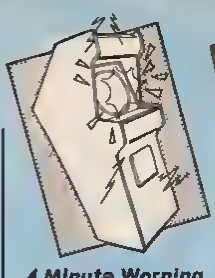
Overall this is an excellent game at a very good price, well worth close examination. M.W.

Price £6.50

Publisher Richard Shepherd

Address Elm Hse, 23-25 Elmshott La, Slough, Berks

C64



4 Minute Warning

I suppose it was inevitable and here it is — propaganda by software. This is not a political judgement, merely an objective statement. The CND logo features on the loading screen, and the instructions point out that we have the luxury of a four minute warning in the face of the nuclear holocaust.

In the guise of a maze game you then have four minutes real time to steer your little man about the screen collecting those things needed to survive in your fall-out shelter. Not surprisingly it's difficult, and you fail. You are then confronted by a screen message which makes the assumption you voted for Margaret Thatcher, criticises you for it, then appeals to Reagan not to push the button!

The graphic standard of the game is similarly crude; no provision for joystick, over-sensitive response to keys, and jerky movement. I suspect the programs is machine code assisted BASIC. As a game, I found it boring, perhaps the standard of a magazine listing of a year ago in terms of sophistication.

As propaganda it fails too, being far too overt. The best propaganda is subtle, and had the authors wanted to actually achieve something in this respect, the concept would have made an ideal vehicle. Happily, they went over the top, and we can see this for what it is. Which makes me ask, if it's so obvious, who's going to buy it in view of it's shortcomings as a game? Is it just to confirm a political conviction? D.M.

price. £5.00

publisher: Magination

address: 47, Clifton Rd, Newcastle upon Tyne NE4 6XH

SPECTRUM

Arcadians

Arcadians was the first Galaxian game released for the BBC many moons ago and it's still the best one around. It has now been converted for the Electron and is as demanding as ever.

Galaxian was the logical progression from space invaders. The ominous cloud of aliens is retained but they are now allowed to indulge in dive bombing tactics. This minor modification to the game increases the level of difficulty ten fold. I wouldn't bother looking for the safety of your shields either, you don't get any in Arcadians.

There are four seperate types of alien, each having it's own scoring value. Hit a ship while it's making a bombing run and it's scoring value is doubled. The value of the command ships, which hover above the main squadron, can vary. These ships normally attack in conjunction with two scout ships. Should you take out the two scout ships before destroying the command ship then it is worth a whole 800 points. However, you will need to practise quite a while before being able to pull off that stunt with any regularity.

The system employed to display the score is one of the best I have seen on any game. At all times during combat the player's score and position in the hi-score table is displayed, from position 30 upwards. This adds to the tension as you watch the points click up towards the number one slot.

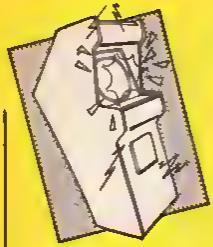
If an accurate reproduction of a classic arcade game is what you are looking for then Arcadians fits the bill. J.R.

price. £9.20

publisher: Acornsoft

address: Acornsoft, 4a Market Hill, Cambridge CB2 3NJ

ELECTRON



H.E.R.O.

Now don't ask me what the initials stand for because the character in the game is called Roderick Hero with no full stops! One other point bothers me and that is the screen picture on the packaging for once I think they are underselling their product because the graphics are amazingly good and don't appear in that block painted fashion that you see on the cover Is this a first in promotional humility?

The game puts you in control of Roderick who has a prop-pack to hover within underground mines You have to rescue trapped miners and watch that you don't run out of power

Armed with dynamite and a microlaser beam attached to your helmet you have to blast your way through walls and kill off any nasty creatures lurking in the depths

With a little practice, control becomes easier using either a joystick or keyboard The menu offers the choice of five starting levels so you can miss some of the earlier easy screens

Points have to be earned but an additional enticement in the instructions says, "The rescue operation is complete when the Hero knows " Needless to say I haven't got anywhere near that but I'd like to hear from whoever does

An excellent game that had good graphics, a chance to progress and a great deal of variety — did I mention the lava river and raft? **M.P.**

price: £11.99

publisher: Activision

address: 15 Harley Hse, Marylebone Rd, Regent Park, London NW1 5HE

MSX

Beamrider

This is a very superior space invaders. But I'm a sucker for the zap-'em-up type of entertainment particularly if it's got a touch of novelty

Activision has created a variety of aliens, nine plus a mother ship, who swoop down at you on a grid In each sector there are 15 white energy saucers to obliterate and various others to avoid Progressing through the sectors makes life increasingly difficult but if you acquire the expertise or simply feel suicidal you can go for the higher levels by choice

For me the star feature was the sound effects which accompanied the start of each sector as well as the rise and fall of power surging from your main weapon — the laser lariats Other appropriate sounds were used to create an intense atmosphere which highlighted the action

The menu at the start offers the game for up to four players One peculiarity with Activision's games for the MSX, however, is that there is always a keyboard version which is never mentioned in the instructions — I played this one quite successfully using the cursor keys and space bar Joysticks are therefore optional

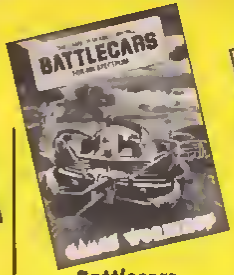
The graphics are excellent and this game is a piece of pure escapism that captivates in more ways than one Even the grid comes racing down towards you to give that 3D illusion of drawing you into the screen **M P**

price: £11 99

publisher: Activision

address: 15 Harley Hse, Marylebone Rd, Regent Park, London NW1 5HE

MSX



Battlecars

Battlecars is a real conundrum Set in a time in which road travel is so safe, people have resurrected dangerous racers with the added fun of missiles and guns You have the chance to select or design your car with a host of features all to help you win against the computer or a friend The process of setting up the game is explained none too clearly in the manual, and ambiguous on-screen prompts don't help much

Once you have done so, you can select the setting in which you race, circuit, city or autodrome This is where your problems start, as each is a separate block of code on tape, and no Microdrives to help! A crude and flickery display shows your progress round each of the courses if you can manage to make any Though keys are assigned for play, there are six for steering and more to control the weapons, no provision is made for joysticks A small card overlay is provided for keyboard control using twelve keys in all for each car Even so it's not properly labelled, and won't fit the Spectrum + or add-on keyboards

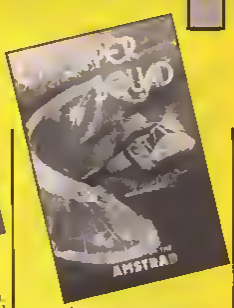
As a result of all this, it's hard to understand, hard to play, and not very rewarding to watch, hence the conundrum If you are clever enough or old enough to understand how to make this work, then patient enough to practice the very complex controls, will the game be sufficiently satisfying once you get to play it? **D.M.**

price: £7 95

publisher. Games Workshop

address: 27/29 Sunbeam Rd, London NW10 6JP

SPECTRUM



Chapper Squad

An arcade game for the CPC464 featuring the current biggie, the helicopter

You manoeuvre it round the screen collecting bits of a jet plane, and placing them down in the bottom right hand corner As you do so, a jet begins to take shape at the top of the screen, and after completing one, you start on the next The bits float down from the top, often landing on a variety of platforms through which it appears you can fly from below, but land on from above

Sounds simple? The complication is that there are aliens, a different type and shape for each level, which get in the way You can, of course blast them away, and when you succeed in making one complete plane, the aliens change and become more attentive

Sound is adequate a reasonable engine noise and laser zap, and the graphics are quite inventive, though if you have seen a few of this type of game, you will soon realise that this is the same plot as Jet Pack from Ultimate for the Spectrum As the Amstrad is a graphically more sophisticated machine you might expect them to be superior, but they aren't quite as good In my opinion they have neither the detail or the ultra-smooth movement

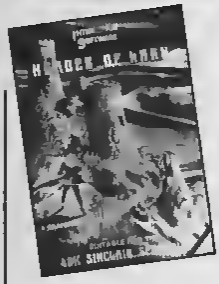
The bonus here, however, is the price. At £2 95 cheaper than the Amsoft games this is excellent value for money and thus worthy of a place in your collection **D.M.**

price: £6

publisher: Interceptor Micros

address: Lindon House, The Green, Tadley, Hants

AMSTRAD



Heroes of Karn

An adventure game with some graphic illustrations, Heroes of Karn takes you back to a medieval/magical/mystery setting in a mythical land. The sleeve notes make all clear.

You are the stranger who must defeat the hordes of Evil, masterminded by the Powers of Night. Only you can rescue the four Heroes of Karn, returning the land to peace and prosperity. In fact, the sleeve notes go much further in setting the scene in 'mock-gothic' prose. Instructions for playing the game are very detailed, but they don't get you far with your quest!

There are about 10 illustrations to accompany the game. These are revealed the first time you encounter a location, but after that, you must specifically ask for them. They really are quite magnificent, I always worry about quality when I see that a game has been converted from the C64 for the Spectrum, but this conversion is good, not simple line drawings, but real pictures drawn in a trice on the screen.

Thankfully, this is not one of those adventures which kills you off in the first three seconds, you get a chance to explore and collect a few bits and pieces before your troubles start! All in all, challenging, well executed and good value for money.

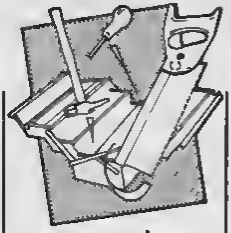
To discover whether it's the ultimate challenge, you'll have to try it for yourself! **D.M.**

price: £5.50

publisher: Interceptor

address: Lindon House, The Green, Tadley, Hants

SPECTRUM



Astrocalc

This is one of an enormous range of programs suited for a variety of computers and is an attempt to give practitioners of astrology the means to make the complicated calculations of relative positions of planets etc at the time of the subject's birth. Other programs in the series will draw the relevant charts and make an analysis, but this confines itself to the calculations on which the interpretation is to be made, and also includes some teaching programs to get the BASIC key words and their meanings stuck in your head.

I'm not qualified to judge the accuracy of the calculations, I must therefore accept them. The standard of user-friendliness is another matter. Considering the claim that these programs are exported, the results are excruciating. Screen prompts are minimal, and if you manage to evade the input error trapping, which is quite easy, the machine crashes. Although the maths is done quickly, the results are squashed up on the screen, in a slightly different form to that exemplified in the detailed accompanying manual. You do have the option to use a printer, though, it would appear, only one which responds to the COPY command.

The level of interpretation based on the manual is very crude and the teaching programs don't really help. All they do is present names of planets and attributes to be learnt, then test you on your learning.

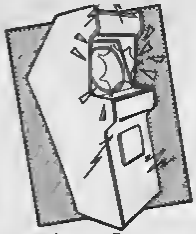
Very expensive, and very crude from a friendliness point of view. **D.M.**

price: £11.50

publisher: Astrocalc

address: 67, Peascroft Road, Hemel Hempstead, Herts HP3 8ER

SPECTRUM



Bigtop Barney

From the name, you may have guessed that this game has a circus theme. Having played it, I had thought that it was completely original. I have it on good authority, however, that it is a copy of an arcade original. That may well be so, but it is an excellent copy.

You control a clown called Barney and must complete four tasks or acts. These can be undertaken in any order and have four different degrees of difficulty.

Task one involves walking along a tight rope and jumping over monkeys or through hoops of fire. Failure to negotiate these looses a life. In task two you must recover balloons from a system of platforms and ladders while avoiding a bouncing ball and the circus strong man. You get about the screen by jumping between levels, using stairs and falling down holes.

Next you must negotiate obstacles whilst riding a unicycle, this screen is essentially the same as the first screen. Finally, you must recover six keys by using trampolines, trapezes and avoiding fire breathers. All screens require accurate timing and patience.

The graphics are simple but highly effective with different scrolling and applauding crowds. The animation of the characters is both amusing and skillful. Four background tunes are used, all well arranged and with a circus flavour — loved the Monty Python piece!

Overall, a fun game which is testing and addictive. At the price this game is good value and is well worth a look. **M.W.**

publisher: Interceptor-Micros

address: Linden House, The Green, Tadley, Hants

C64

Sentinel

This game is essentially Star Trek but offers furious action, brilliant graphics and sound effects.

You are tasked with protecting the planet Jaraloba from the attacks of the enemy forces of Gorgamitor. To this end, you patrol an area of space destroying a number of different types of enemy ships and their Base Stars. Throughout the game, you must nurture your ship's resources and return to your home bases for repair and refueling.

The display gives you the view through the front scanner of your ship. A superb feeling of forward motion is given by the stars and other objects as they zip towards you. The top of the screen gives a constant record of the ship's status. You can review the status of the universe by displaying a Stellar Grid. This gives the current distribution of enemy ships in each quadrant. You also use this grid to move to a specified area.

Combat is depicted by the view of enemy ships coming towards you. You have a set of cross hairs to aim your weapons. The different types of enemy use different tactics and are quite hard to shoot.

There are many other interesting features which I will leave for you to discover. The strength of this game is it's excellent use of sound and graphics — not just in odd areas, but throughout the game.

Overall, this is a brilliant game which is absorbing, tough and addictive. At the price, excellent value. **A.W.**

price: £9.95

publisher: US Gold

address: Unit 10, The Parkway Industrial Centre, Heneage St, Birmingham B7 4TY

C64

Paddington's Garden Game

This game should appeal to Paddington Bear fans and may even cause Paddington to gain a few more

You move Paddington through a series of gardens catching butterflies. The gardens are in the form of a simple maze made up of flower borders. The flowers are poisonous so Paddington must not touch them. Other things he must not touch are the hedgehogs that run around the gardens and the wasps.

He had three lives to catch as many butterflies as possible. The butterflies have names and at the end of the game they are all released.

The cassette has a fast load feature and the game can be played from keyboard or joystick. When the game has loaded you get some screens of instructions and away you go. Also included is a poster of a garden. I don't think the garden layout on the poster is related to the one in the game although there is a loose resemblance.

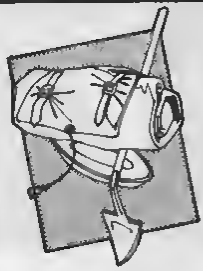
I enjoyed playing this. The garden layouts are not too complex but the graphics are nice. Each garden has one or more exits that take you to other gardens and if you're lucky you may come across some marmalade sandwiches which earn bonus points.

The highest score together with the player's name is displayed on the screen so simple competitions can be organised. This is a good value game that should appeal to the younger user. **L.C.**

price: £6.95

publisher: Collins Soft

address: 8 Grafton Street, London W1X 3LA



Tower of Despair

It's an adventure folks, with you cast as the Warrior-Mage of Castle Argent, summoned by the Wizards to destroy Malnor the Screaming Shadow — come back mother in law, all is forgiven! No but seriously.

This medieval fantasy is fully created by reading the accompanying manual. The background to the story, the setting and much more are found here. Apparently, Malnor was previously defeated but must again be challenged by the reuniting of the gold and silver gauntlets, only one of which you hold. You must find the holder of the other, then journey to the Tower of Despair and fight it out.

The game, written with the Quill, fills both sides of the tape and sounds very complex. Unlike other adventures, however, you are given a map of the whole area of play. Quilled adventures are, of course, text only — but not this one! A finely designed character set is featured on the screen, but the illustrations are in the form of excellent line drawings in the manual. These merit very close attention as visual clues are to be found here. Not only that, but you actually get plans of the castle in which you start.

Ironically, although all this information is provided, there's still a very tight hipped attitude to the commands and features of the program, so there's still plenty to find out. You do get a chance to get started before dying too! Different and challenging, though not perhaps an adventure for first timers. **D.M.**

price: £7.95

publisher: Games Workshop

address: 27-29 Sunbeam Rd, London NW10 6JP

D-Day

D-Day is not so much a game as a simulation. It's complex, and features a map of the battle zones, including disposition of both Allied and German troops and weaponry. It is this map over which the screen window scrolls.

Play against the computer is impossible, you need a friend, and you can choose which of the battle scenarios to use, the landing, breaking out, to Arnhem, Arnhem invasion. Each of these has to be loaded separately from tape, an obvious use for Microdrives, but no provision is made for them. Though you can ask the computer to deploy your troops for you, it's clearly better to sort it out yourself, it does take time however. Via a complex set of cursor keys you can then manipulate your forces according to an overall map which can be called up at any time.

A vast amount of information is available about the different types of troops and weapons, together with their readiness for battle, the type of terrain and so on. Through the computer you must unload trucks, bring supplies ashore, including tanks, fight and fire. Although the manual goes into detail about all this, it's hard to understand, and in places doesn't seem to make sense.

Graphically, although attractive, the screen is crude, but this should not deter the hardened war gamer at which this package appears to be aimed. Certainly not for the arcade freak. A specialist may appreciate it even at this slightly high price. **D.M.**

price. £7.95

publisher: Games Workshop

address: 27/29 Sunbeam Road, London NW10 6JP

Flipped

Hooked

Keen

Yawning

Comatose

LEARN SOME NEW WORDS

Extend your vocabulary with six new RSX commands. David Ellis continues his enlightening series on Amstrad programming

Six more new words this week to add to your growing list of RSX commands

UROLL

This word is used to scroll the screen up by eight pixels (one line) The top line will be 'lost' and the bottom line cleared No parameters are needed for this one

DROLL

The exact opposite! The screen will scroll down by eight pixels, with the bottom line being lost and the top line cleared

Both of these words use the same ROLL routine — available on the jump block — the contents of the B register decide whether the roll is up or down The words can be used for many purposes The following example will produce a screen 'judder' — useful for explosion effects in a game

```
FOR X = 1 TO 20 :UROLL
  |WAIT,5 : |DROLL : |
  WAIT,5 : NEXT
```

The length and speed of the shake can be changed by altering the values for WAIT AND X

The next two words ZERO and MOVE deal with changing the contents of RAM They are both powerful commands, but also very destructive if you are careless in specifying the values

ZERO

This will zero the contents of a specified number of RAM locations. The syntax for using ZERO is

```
|ZERO, number of bytes, start
  address
```

For example, to clear the screen memory (which starts at &C000) you would use

```
|ZERO, 16383,&C000
```

Notice how quickly the routine performs It is the equivalent of POKEing 16383 locations with zero Compare the speed of doing this in BASIC by

```
FOR SCREEN = &C000 TO
  &FFFF : POKE SCREEN,0
  : NEXT
```

This is a good example of the difference in speed between machine code and BASIC ZERO could also be used to clear parts of the screen if required, but it's main purpose was to zero blocks of memory that are going to be used as buffers by various machine code programs or data

MOVE

MOVE is a very powerful word It will copy X number of bytes from one position in memory to another The syntax for MOVE is:

```
|MOVE, number of bytes, des-
  tination address, source
  address
```

Make sure you get the order correct! The source address is where the bytes are that you wish to copy The destination address is where they are to be copied to Any errors here are almost certain to corrupt either your BASIC or machine code program or some other part of memory — with dire results!

MOVE can be used to relocate code routines — provided they are 'relocatable' A machine code routine is relocatable provided that any jumps to within that program are relative jumps (JR) and not absolute jumps (JMP) Always use a JR instead of a JMP if possible as not only is it quicker but the program will then, in most cases, be relocatable If the screen memory layout of the AMSTRAD was more conventional, then MOVE would be very useful for moving pictures etc on the screen However, due to the unusual screen layout this is not really on

Copying the whole screen to memory and recalling it later can be very useful though This could be done as follows

```
|MOVE, 16384 , 10000 , &C000
```

All 16384 bytes of screen memory are copied to locations 10000 to 26383 Be careful that the area you copy to is not being used by a BASIC or machine code program, or by the operating system or else the results will probably be disastrous Try the above by copying a screen layout Clear the screen and then enter the following to re-display the original screen

```
|MOVE , 163384 , &C000 ,
  10000
```

The original picture will be displayed in a fraction of a second Be careful that the screen offset has not changed though in between saving and recalling the screen Provided that no screen scrolling has taken place then the offset will be the same This is much more likely to happen when saving screen dumps on tape and loading them back in at a later date

As you may have found, the picture is displayed in the wrong position, unless you are very lucky To help overcome this the following two words will be of great benefit, plus they can be used to produce some very fast scrolling

To scroll the screen on the AMSTRAD an offset is used The actual scroll is then performed by hardware — so it is very quick Two routines are provided in the jumpblock to read and set the offset They are

1 SCR SET OFFSET (&BC05) — Set the screen offset
2 SCR GET LOCATION (&BC OB) — Fetch the offset

These are both used for the following two words

OFFSET

This will call the SCR GET LOCATION routine which returns the value of the offset to the HL register pair This value will then be placed into the variable OFFSET% by using the following syntax

```
|OFFSET , @OFFSET%
```

As with LROM and UROM the variable OFFSET% will need to be declared first by using — OFFSET% = 0 This makes sure that an address for the variable is present, which is then used by OFFSET. To complement OFFSET we need a word to set the offset.

SETOFFSET

By following this word with the required offset value some very useful screen scrolling can be induced. The syntax for SET OFFSET is

!SETOFFSET , value of offset

Try the following to see the effect of changing the offset value

```
FOR X = 1 TO 10000 STEP
  500 : !SETOFFSET,X : !
  WAIT 100 : NEXT
```

Try changing the values for the offset and WAIT and you will soon realise the potential. If you are saving a screen dump on tape or to memory, then you can now take a note of what the offset value is at the time of saving. This value can then be used to set the offset when the picture is recalled, which should solve the aforementioned problem.

Listings 1 and 2 give the full details of the machine code routines for these six new words.

The LDIR instruction in the MOVE routine deserves a special mention. This is one of those powerful multi-purpose Z80 instructions.

The contents of the memory location addressed by the HL pair are loaded into the memory location addressed by the DE pair. Both DE and HL are then incremented. The BC register pair are then decremented (by 2). If BC does not equal zero then the instruction is repeated. For just two bytes of machine code this instruction saves much programming — see how many bytes it would take in 6502 machine code to do the same thing!

You should now have quite a few words in your RSX. The BASIC listing (listing 3) will enable you to print out the words in the RSX word table. You can use the program as it is or tag it on to the program which enters the new words.

Next week we start on some LOGO type words to help you get to grips with the Amstrad graphics. Hopefully these will help to save you both time and memory in producing those 'special' pictures.

Listings 1. Machine code listing for UROLL, DROLL, ZERO, MOVE

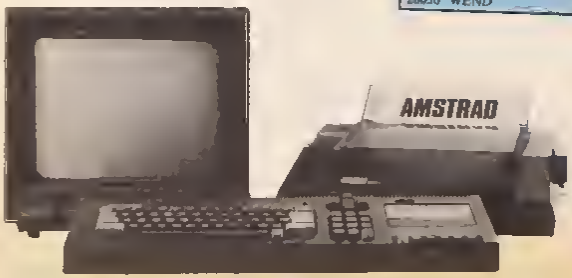
Address	Mnemonic	Op Codes	Comment
			UROLL
&82F0	LD B,1	6 2	load B register with 1
&82F2	CALL &BC4D	CD 4D BC	call ROLL routine
&82F5	RET	C9	return from subroutine
			DROLL
&82F6	LD B,0	6 0	load B register with 1
&82F8	CALL &BC4D	CD 4D BC	call ROLL routine
&82FB	RET	C9	return from subroutine
			ZERO
&82FC	CP 2	FE 2	are there 2 parameters
&82FF	RET NZ	C0	return if there are not
&8302	CALL &8295	CD 95 82	DE = no of bytes HL = address
&8304	LD B,0	6 0	load B with zero
&8305	LD (HL) B	70	load HL address with B (0)
&8306	INC HL	23	next address
&8307	DEC DE	1B	decrement count of bytes
&8308	LD A,D	7A	copy D to accumulator
&8309	OR E	B2	logical OR with E
&830A	JR NZ &8304	20 F9	jump relative to &8304 if not zero
&830B	RET	C9	all done — so return
			MOVE
&830C	CP 3	FE 3	are there 3 parameters?
&830E	RET NZ	C0	return if there are not
&830F	CALL &828F	CD 8F 82	HL = source address DE = destination
&8312	LDIR	ED B0	(see text)
&8314	RET	C9	Return. BC = no of bytes

Listing 2. Machine code listing for OFFSET and SETOFFSET

Address	Mnemonic	Op Codes	Comment
			OFFSET
&8315	CMP 1	FE 1	is there one parameter?
&8317	RET NZ	C0	return if not
&8318	CALL &BC0B	CD 0B BC	get the screen offset
&831B	PUSH HL	E5	save the value
&831C	CALL &829B	CD 9B 82	put address of LOCATION% to HL
&831F	POP DE	D1	put offset value in DE
&8320	LD (HL) E	73	LSB to LOCATION% address
&8321	INC HL	23	next address
&8322	LD (HL),D	72	MSB to LOCATION% address + 1
&8323	RET	C9	done
			SETOFFSET
&8324	CP 1	FE 1	is there one parameter?
&8326	RET NZ	C0	return if not
&8327	CALL &829B	CD 9B 82	value of offset to HL
&832A	CALL &BC05	CD 5 BC	sets the offset
&832D	RET	C9	done

Listing 3. BASIC subroutine to list new words in RSX word table

```
20000 ADDRESS = &7E8C  X = 1  WHILE XX X0
20010 X = PEEK(ADDRESS)  ADDRESS = ADDRESS + 1
20020 IF XX 128 THEN PRINT CHR$(X), ELSE PRINT CHR$(X 128).
20030 WEND
```



S U R V E Y

OPINION POLL

It's your chance to give us your views. You've read the mag, you've typed the programs, now tell us what you think

HCW Survey

A penny for your thoughts. Not enough? How about a complete game?

Software Projects, the [illegible] brought you Jet [illegible] one game [illegible] first 100 readers [illegible] pulled out of [illegible] to do is [illegible] of the [illegible]

[illegible] what you [illegible] so we can [illegible] ovide exactly [illegible] read. This is [illegible] to make the [illegible] Want more [illegible] Reviews too [illegible] We don't [illegible] uter? Tell us. [illegible] make a better [illegible] we keep in touch [illegible]

[illegible] who own a [illegible] receive a copy of [illegible], the incredibly [illegible] and levels game [illegible] en allows you to design [illegible] own screens. Commodore [illegible] wners will be sent BC's [illegible] for Tires, a wacky [illegible] toon adventure where you [illegible] mp over rocks and holes to save Cute Chick from the Dinosaur.

If you own another computer you will receive a book or cassette from HCW for your machine.

Something for everyone with nothing to lose, except of course your thoughts.

Name _____

Address _____

1. Are you male ☐ / female? ☐

2. How old are you? _____

3. Occupation Student ☐ Working ☐ Neither ☐ Please tick

4. Please tick the computers you own or use

- ☐ Spectrum
- ☐ ZX81
- ☐ QL
- ☐ Commodore 64
- ☐ C16
- ☐ Plus/4
- ☐ VIC-20
- ☐ BBC
- ☐ Electron
- ☐ Amstrad CPC464
- ☐ MSX
- ☐ Enterprise
- ☐ Oric
- ☐ Sord M5
- ☐ TI-99/4A
- ☐ Other (please specify)

5. Are you likely to buy another computer in the next six months? Yes/No
If yes, which _____

6. Which peripherals will you probably buy within the next 12 months?

- ☐ RAM pack
- ☐ Light pen
- ☐ Joystick
- ☐ Disc drive
- ☐ Monitor
- ☐ Printer
- Keyboard
- ☐ Other/s (please specify) _____

SOFTWARE PROJECTS

7. Which of these magazines do you [illegible] how do you rate them? Tick the appropriate column

	How often			Rate			
	Every issue	Occasional	Rare	Excellent	Good	Average	Poor
Popular Computing Weekly							
Personal Computer News							
Computer and Video Games							
Others (please specify)							
Home Computing Weekly							

8. Software

a. How much do you spend on software over a six-month period? £ _____

b. How often do you buy software?
Every week☐ Every month☐ Rarely☐

c. What types of software do you buy?
Adventure☐ Utilities☐ Business☐
Arcade☐ Household☐ Educational☐

d. Do software reviews influence your buying?
Yes☐ No☐

e. Do you follow the Gallup chart? ☐Yes ☐No

f. Do you type in HCW program listings? Yes☐ No☐

9. Hardware and peripherals

a. Do reviews influence your buying? Yes☐ No☐

b. Would you like to see more hardware reviews?
Yes☐ No☐

c. Do you buy mail order from HCW adverts?
Yes☐ No☐

10. Book reviews

[illegible]

b. Do you buy books about your computer? Yes☐ No☐

11. Home Computing Weekly

a. Where do you buy your copy of HCW?
Regular order☐ From shelf☐ Subscription☐
Computer shop ☐

b. Do you ever have trouble getting a copy? Yes☐ No☐

c. How many people read your copy of HCW? _____

12. Do you like the new look HCW? ☐Yes ☐No

13. Which parts of HCW do you like best? _____

14. Which aspects would you most like altered, and how? _____

[illegible] would you most like to see in HCW? _____

OPINION POLL

48K SPECTRUM PROGRAM

PIRATE'S GOLD

This program by Tim Lang takes you in search of treasure on a desert island

In this game you play the part of a pirate. Travelling around 10 desert islands you must try to find your treasure.

Each island is different and more difficult than the last. There is a time bonus if you return quickly.

How it works

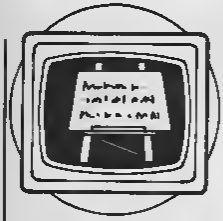
- **5** score subroutine
- **10** sets colours and high score, calls title and instructions subroutines
- **15** sets score and level to zero
- **20** prints final score, program loops back to here
- **30-90** call subroutines to print screen, detect adjacent object and print score
- **100-240** main movement loop
- **300** prints a$ on screen and beeps
- **310-330** prints final score and offers another game
- **500-650** routine to detect adjacent objects and print at bottom of screen
- **1000-1400** initialise and calculate co-ordinates of all objects, prints palms and cacti
- **1900-2160** print title subroutine
- **2140-2160** data from code and UDGs
- **4000-4040** tune subroutine
- **5000-5060** instructions subroutine

Variables

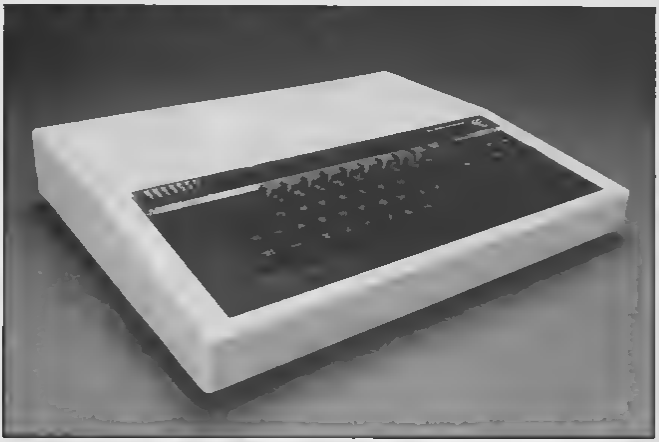
- **sc** score
- **hs** high score
- **le** level
- **p** progress flag
- **h** hunger rating
- **t$** code of key pressed
- **x,y** co-ordinates of man
- **a$** main array
- **b$** code of object at y,x
- **bx,by** co-ordinates of gold
- **o** time bonus
- **c$** holds codes of adjacent object
- **n,i** used in increase x,y and in screen routine
- **l** marks sea
- **px,py** co-ordinates of palm trees
- **lx,ly** co-ordinates of natives
- **lx,ly** co-ordinates of quicksands
- **gx,gy** co-ordinates of parrot
- **hx,hy** co-ordinate of pirate's map
- **jx,jy** co-ordinate of pirate's spiders
- **w** UDG value from data statement
- **x$** pitch of notes for tune
- **y$** length of notes

```
  1 REM PIRATE'S GOLD                                  by T.
LANG
  5 PRINT AT 0,0;: FOR n=1 TO le: PRINT "PARTE
INK RND*5+3;  ";: BEEP .01,35: NEXT n: PRINT "PA
PER 1: INK 7;AT 0,20;"SCORE ";sc: RETURN
 10 PAPER 1: BORDER 1: CLEAR 65345: LET hs=0: GO
SUB 2130: GO SUB 5000
 15 LET sc=0: LET le=0
 20 IF le=10 THEN  GO SUB 2140: PRINT 0;"FINAL S
CORE =  ";sc: PAUSE 1000: INPUT "": GO TO 320
 30 LET le=le+1
 40 LET p=0: GO SUB 1000: LET h=50-le
 50 GO SUB 5: GO SUB 600: POKE 23673,0

 60 REM GRAPHICS
                    a b c d e f g h i j k l m n o
                  D E F                 I J
 100 REM MAIN LOOP
 110 PAPER 6: INK 0
 120 LET z$=INKEY$: IF CODE z$>56 OR CODE z$ 55 TH
EN  GO TO 120
 130 INPUT "": PRINT  BRIGHT (le<6 OR le=8);AT y,x
;" "
 140 LET x=x+(t$="8")-(t$="5"): LET x=x-(x=32)+(x=
0): LET y=y+(t$="6")-(t$="7"): LET y=y-(y=22)+(y=0
)
 150 IF h<0 THEN  PRINT 0;"YOU RETURN TO THE SHIP
 FOR FOOD": LET sc=5*INT (sc*.15): FOR n=40 TO 20
STEP -.2: BEEP .05,n: NEXT n: LET le=le-(le>1)-(le
>8): GO TO 40
 160 LET b$=a$(y,x): IF b$=" " OR b$="*" THEN  PRI
NT AT y,x;" ": LET a$(y,x)="*": LET h=h-1: BEEP .0
2,10: GO SUB 600: GO TO 120
 170 IF b$="C" THEN  LET c$=h+30-le: LET a$(y,x)="+
": FOR n=1 TO 10: PRINT AT y,x;"C": BEEP .02,-5:
PRINT AT y,x;"C": BEEP .02,-8: NEXT n: PRINT AT y,
x;"*": LET sc=sc+5*le: GO SUB 5: GO SUB 600: GO TO
 100
 180 IF b$="P" THEN  LET h=h+25-le: LET a$(y,x)="+
": FOR n=1 TO 10: PRINT AT y,x;"P": BEEP  .03,5  P
RINT AT y,x;"*": BEEP  .03,6: NEXT n: PRINT AT y,x
;"*": LET sc=sc+5*le:  GO SUB 5:  GO SUB 600: GO TO
 100
 190 IF b$="L" THEN  LET a$(y,x)="+": FOR n=1 TO 5
: PRINT AT y,x;"A": BEEP .07,15: PRINT AT y,x;"+":
BEEP  .07,10: NEXT n: IF h>le*5 THEN  PRINT AT y,x
;"A": LET sc=sc+50+50*(le>3)+150*(le>8): GO SUB 5:
 GO SUB 600:  GO TO 100
 200 IF b$="I" THEN  FOR n=0 TO 6: PRINT  INK n;AT
y,x "*": BEEP 1,-(5-n*3): NEXT n
 205 IF b$=" " THEN  FOR n=1 TO 4: PRINT  INK 2;AT
 y,x;" ": BEEP .5,-15  PRINT  INK n+2;AT y,x;"*":
BEEP  2,40/(3*n): NEXT n
 210 IF b$="J" THEN  PRINT AT y,x;"*": RANDOMIZE U
SR 65346: LET sc=sc+le*5+30: PRINT  PAPER 2; INK 7
;AT hy,hx;"*": BEEP  3,25: BEEP  25,25: GO SUB 5:
GO SUB 600: LET a$(y,x)="*": LET p=1: GO TO 100
 220 IF b$="H" THEN  PRINT AT y,x;"H": RANDOMIZE U
SR 65346: LET sc=sc+le*20+50: LET a$(y,x)="+": PRI
NT  PAPER 6; INK 0;AT by,bx;"*": BEEP .3,35  BEEP
 25,30: GO SUB 600: IF NOT p THEN  LET sc=sc+300*le
+250
 225 IF b$="G" THEN  GO SUB 5: LET p=p+1: GO TO 10
0
 230 IF b$= "F" THEN  PRINT AT y,x;"*": RANDOMIZE U
SR 65346: FOR n=15 TO 45: BEEP  .05,n  NEXT n: LET
sc=sc+le*50+300*(2 p): GO SUB 5: LET a$(y,x)="+":
GO SUB 600: GO TO 100
 240 IF b$= "*" OR b$= "L" THEN  IF a$(by,bx)<>"G" T
HEN  LET sc=sc+50*le*25: FOR n=1 TO 21: PRINT  INK
 9; PAPER 0;AT n,0;"*": BEEP  .05,n: NEXT n:
GO SUB 5: FOR n=1 TO 150: NEXT n: LET m=PEEK 23673
-le*2: LET m=(5-m)*(m<251)*15: PRINT 0;"TIME BONUS
 = ";m: LET sc=sc+m: GO SUB 5: PAUSE 500: GO TO 20
 290 REM END OF GAME
 300 FOR n=1 TO 21: PRINT  PAPER 0; INK 9;AT n,0;"
";a$(n): BEEP  .5,-n: NEXT n
 310 PRINT  FLASH 1;AT 11,10;"GAME  OVER"
 320 IF hs<sc THEN  PRINT 0;"A NEW HIGH SCORE": L
ET hs=sc: GO SUB 4000: INPUT ""
 330 PRINT 0;"HI-SCORE=";hs;"    ANOTHER GO ?"; P
AUSE 0: IF INKEY$="Y" OR INKEY$="y" THEN  LET le=0
: LET sc=0: GO TO 20
 340 GO SUB 2140: STOP
 400 REM DETECT NEXT CHARACTER
 410 LET c$= " ": LET s=x+(x<>31): LET d$=a$(y,s):
```

```
IF d$<>" AND d$<>"+" AND d$<>"-" THEN  LET c$=c$
+d$
 1430 LET e=x-(x<>1): LET d$=a$(y,e): IF d$<>" AN
D d$<>"+" AND d$<>"-" THEN  LET c$=c$+d$
 1440 LET t=y+(y<>21): LET d$=a$(t,x): IF d$<>" A
ND d$<>"+" AND d$<>"-" THEN  LET c$=c$+d$
 1450 LET t=y-(y<>1): LET d$=a$(t,x): IF d$<>" AN
D d$<>"+" AND d$<>"-" THEN  LET c$=c$+d$
 1460 IF c$<>" " THEN  PRINT #1;"You are next to";c
$;: BEEP .2,29: IF k(3+1e+3 THEN  PRINT #1;" & are
 hungry"1 BEEP .2,20
 1640 RETURN
1000 REM initialise
1010 DIM a$(21,31)
1020 PAPER 1: INK 6: BORDER 1: CLS
1030 LET e=4: LET t=27
1040 FOR n=1 TO 21: LET a=a+INT (2-RND*3)-(n<7)+(n
>17): LET t=t+INT (2-RND*3)-(n>17)+(n<8)
1050 IF a<1 THEN  LET a=1
1060 IF t 30 THEN  LET t=30
1070 PRINT AT 0,0; INK 1; PAPER 6;"O ";INK 0;"O"
1080 FOR l=1 TO y-1: LET a$(n,l)=" ": NEXT l: FOR
l=t+1 TO 31: LET a$(n,l)="-": NEXT l
1090 NEXT n: LET n=31
1100 PRINT AT 20,n; INK 7;"L";AT 21,n; INK 3;"O":
IF a$(21,n-1)="-" THEN  BEEP .2, 30: PAUSE 25: PRI
NT  PAPER 1;AT 20,n;" ";AT 21,n;" ": LET n=n-1: GO
 TO 1100
1120 LET a$(20,n)="L": LET a$(21,n)="O": LET y=21:
 LET x=n-1: BEEP .3,-30: LET a$(20,x)=" ": LET a$(
21,x)=" "
1130 LET bx=INT (RND*28)+2: LET by=INT (RND*15)+2:
 IF bx+by<25 THEN  GO TO 1130
1140 IF a$(by,bx)="-" THEN  GO TO 1130
1150 LET a$(by,bx)="E"
1160 FOR n=1 TO 10
1170 LET ex=INT (RND*28)+2: LET ey=INT (RND*18)+2:
 IF a$(ey,ex)<>" " THEN  GO TO 1150
1180 LET fx=INT (RND*28)+2: LET fy=INT (RND*18)+2:
 IF a$(fy,fx)<>" " THEN  GO TO 1180
1190 LET a$(ey,ex)="F": IF le<4 THEN  PAINT  PAPER
 6: INK 4;AT ey,ex;"E"
1200 LET a$(fy,fx)="C": IF le 9 THEN  PAINT  PAPER
 6: INK 4;AT fy,fx;" "
1210 NEXT n
1220 FOR n=1 TO 10*2*le
1230 LET kx=INT (RND*28)+2: LET ky=INT (RND*18)+2:
 IF a$(ky,kx)<>" " THEN  GO TO 1230
1240 LET a$(ky,kx)=" ": NEXT n
1250 LET ix=INT (RND*29)+2: LET iy=INT (RND*19)+2:
 IF a$(iy,ix)<>" " THEN  GO TO 1250
1260 LET a$(iy,ix)=" I": NEXT n
1270 LET gx=INT (RND*28)+1: LET gy=INT (RND*18)+2
1280 IF a$(gy,gx)<>" " THEN  GO TO 1270
1290 LET a$(gy,gx)=" ": PAINT  PAPER 6; INK 1;AT g
y,gx;" "
1300 LET hx=INT (RND*26)+4: LET hy=INT (RND*18)+3:
 IF hx+hy>25 THEN  GO TO 1300
1310 IF a$(hy,hx)<>" " THEN  GO TO 1300
1320 LET a$(hy,hx)="H"
1330 FOR n=1 TO 2*le
1340 LET jx=INT (RND*28)+2: LET jy=INT (RND*18)+2:
 IF a$(jy,jx)<>" " THEN  GO TO 1340
1350 LET a$(jy,jx)="J": LET a$=a$(jy,jx): PRINT  P
APER 6; INK 0;AT y,x
;"O"
1400 RETURN
1500 REM DATA FOR M/CODE
1510 DATA 33,0,00,1,0,3,17,112,49,126,187,32,1,114
,35,11,120,177,32,245,201,0
2000 DATA 38,134,134,126,29,29,30,34
2010 DATA 129,66,36,24,24,36,66,129
2020 DATA 0,192,96,48,15,63,224,0
2030 DATA 28,4,3,7,254,252,228,12
2040 DATA 199,60,126,153,24,24,24,60
2050 DATA 32,36,36,36,60,8,8,28
2060 DATA 32,54,62,28,30,39,64,128
2070 DATA 28,62,42,62,28,99,28,99
2080 DATA 24,126,222,247,189,231,118,60
2090 DATA 129,66,60,219,60,90,153,0
2100 DATA 128,153,153,255,153,152,164,36
2110 DATA 24,255,126,126,24,255,126,126,24,153,255
,255,255,255,126,60
2120 DATA 15,3,1,0,0,1,3,15,240,192,128,0,0,128,19
2,240
2130 RESTORE : FOR n=0 TO 141: READ w: POKE (65536
+n),w: NEXT n
2140 BORDER 1: INK 6: PAPER 1: CLS : PRINT AT 2,29
;"L
[illegible]
2150 PRINT AT 12,6;"[illegible]
2160 PRINT AT 21,0
6000 REM TUNE
6010 LET x$="SDDDDDDDDGGGGGGG"
6020 LET y$="B12221222918181"
6030 FOR n=1 TO 15: BEEP VAL y$(n)/10,11+3*(x$(n)=
"D")+7*(x$(n)="G"): NEXT n: BEEP 1.2,7
6040 RETURN
5000 REM INSTRUCTIONS
5010 PRINT #1,"DO YOU WANT INSTRUCTIONS ? (Y/N)":
PAUSE 0: IF INKEY$<>"Y" AND INKEY$<>"Y" THEN  RETU
RN
5020 INPUT "": POKE 23733,255: PRINT AT 21,0;"PRESS
 GOLD -- INSTRUCTIONS","========== ===  ====
========" "USING KEYS S to H YOU (H) TRAVEL" "AROU
ND TEN DESERT ISLANDS" "THE PARROT (G) WILL SHOW Y
OU" "THE MAP (M) TO THE TREASURE (B)"
5030 PRINT AT 21,0;  "YOU MAY EAT AT THE PALMS (E)
 AND  "CACTI (F) YOU MAY ATTACK THE" "NATIVES (N)
 FOR EXTRA POINTS" "UNLESS YOU ARE HUNGRY"
5040 PRINT AT 21,0;  "AVOID THE SPIDERS (I) AND TH
E" "QUICKSANDS (S) AND THE SEA WHICH" "IS INFESTED
 WITH CROCODILES (C)"  "NOTE:  ALTHOUGH YOU CANNO
T SEE" "MANY OF THESE THINGS YOU WILL E  "TOLD WHA
T YOU ARE ADJACENT TO"
5050 PRINT #1;"RETURN QUICKLY TO YOUR SHIP     WIT
H THE GOLD FOR A TIME BONUS"
5060 PAUSE 3000: RETURN

9990 SAVE "PGold" LINE 10
```



BBC EDUCATIONAL AWARDS



John Henderson looks at the best and worst of educational software for the BBC, for use at home and in schools

As the BBC is the most common computer in educational use, this article looks back at the hits of the last twelve months on this machine It is confined to software available on the home and school market.

Best package

Fancy a package that children can use again and again without tiring of the possibilities? Telebook from 4Mation is such a product. It comes with an excellent handbook, plus a set of laminated help cards and eight sample files

The files show examples of a class magazine, puzzles, stories and illustrations actually created by children Options within the program allow LOADing and editing of up to 15 pages of text A manual or automatic paging facility helps the user to remain in control, providing an on-going display of information Pages can be created in a very short time and storage is simplicity itself

Not only do you get all this, but disc users have two other programs thrown in — one a disc utility, the other an active search catalogue for all the discs in school Real value for money

Most original

Whoever thought of the character Podd by Ask deserves to succeed Imagine an alien landing on this planet It can understand some English You don't know which words, only that there are 120 actions the creature can perform — an instant recipe for magic

Podd appeals to children aged 3 to 103 Watch as you interrogate Podd — see him run, jump, even try to fly Ask too many questions and he blushes Be too demanding and you risk self-destruction as Podd explodes on the spot Actions can even be made into a short story, as up to five actions can be performed together Incorrect guesses are greeted by a 'press the space-bar' symbol

This really is a new venture and the idea is so simple that anyone can use it

Best adventure

Hang on to your hat as you enter the world of L — no not the fiery place, but a mathematical world where numbers take on real meaning L comes from the Association of Teachers of Mathematics

The object is to survive long enough on your mathematical wit to beat off the menaces threatening your progress As with all adventures be careful to carry the correct objects when you need them Note-making is essential as you try to find the key to unlock the mystery A really innovative adventure that will keep children thinking — even if it is Maths!

Best sound program

In spite of the price, this has to be the Island Logic Music System The in-built sound facilities on the BBC are very versatile Add the power of Music System, a real snip at £24 95 and children will become instant composers overnight

Music System may seem expensive, but it's a real gem There are five modes of operation A full editor allows children to create their own notation and alter it where necessary Keyboard provides a piano-like keyboard for use, and synthesiser allows musical shapes to be created and saved, and printed out

One innovation is the option of a linker program, where up to 10 music files can be linked together A collection of sample sounds are also contained in the package

A must for schools and the home A real alternative to the recorder and violin

Most changed software

All good software developments should include room for changes When Factfile was given to schools as part of a freebie package it sent many teachers and children mad Too many bugs spoiled a useful tool

Add a new author, a full user guide and Son of Factfile has hit the shelves

Under the name of Picfile, from Cambridge University

Press, this introductory database comes complete with three sample datafiles, a file copy program, printer file and Picfile itself. This enables datafiles created on the re-vamped Factfile to be displayed as bar charts or scattergrams and greatly increases the versatility of the whole package.

Children can extend their thinking skills and become active interrogators — asking awkward questions comes naturally to them. A further inducement is the availability of Picfile on a seven day trial basis — take the risk.

Most deplorable program

Unfortunately this award could take up the whole page as there are so many educationally poor programs vying for your money. I've restricted it to three competitors.

Ginn publishers win on the grounds of having the most expensive boxes in the business. Software seems to automatically double in this blue packet.

The other two winners are really a parents' guide to evaluation. Any package with the Regional MEP (Microelectronics Educational Programme) symbol on it should be viewed with extreme caution, as should software dealing in ticks and crosses as display features. Early Reading Skills, a hybrid from MEP/ESM falls quickly into this cavern. Beware, you have been warned.

Best software house

This was a close run contest, which is surprising. Most producers of educational software can almost self-destruct their own reputations. 4Mation ran a close second. All the material is tested thoroughly in schools before it reaches the shelves and the standard is extremely high. The winner, ASK, is a company which is equally concerned about the children who will use the products.

There is a larger library of programs from which to choose and a consistently high degree of quality within all the products. Not only does ASK market Podd, but other favourites including Facemaker, an easy to use identikit program, and Number Gulper.

Best simulation

Archaeology, by Cambridgeshire Software House, is an open-minded simulation straight from the stable which produced Expedition to Saqqara. This program can be used in any location — even your own back garden. Using an 80 x 60 grid, children draw up a site plan from which they, or other explorers, will later excavate. First you enter the walls on up to three levels, then the floor areas, and finally the artifacts. Through an easy to follow menu, children can then explore the site over a period of time. One drawback is the omission of a sample file, but the documentation sets the scene well.

The possibilities are endless, it could be used to monitor the progress of a reluctant gardener over the years of sweat and toil in the battle with the weed.

Hit of the year

This has to be Podd for sheet brilliance. A non-violent, non key-bashing, non-ear piercing program for all the family, and educational to boot.

The future

The software scene has changed rapidly over the last year. Over the next 12 months look for two things. First, software that is more open-ended and can be adapted to many situations. Secondly, software that has been tested in schools before marketing. Sensible software houses will advertise the fact.

Happy computing — at home or school. **J.H.**

BBC/ELECTRON GAME

DESERT RACE

The sand's flying in this camel race! Place your money and take your seats for Richard Webb's game

Place your bet on one of six camels, then watch them race. Each camel has it's own odds, which invariably prove true to form.

VDU commands are used to define the camel. Not much sound is included, but you can add your own if you wish.

How it works

1-99 set variables, define characters
100-146 GOSUBs to each part of program
160-190 prints total, race number
200-420 title page, instructions
500-680 betting list, camel number, bet
700-739 print course
740-810 race, checks for winner
1000-1530 checks if won, prints winner and total, check for no money

Variables

T total (£)
RC race number
MV which camel to move
C1,C2,C3 C4,C5,C6 which camel to move
OD odds of particular camel
L1,L2 where to print top and bottom half of camel
F random number (1-180)
W winner
CM camel you are betting on
BT how much you are betting
QS play again?

Conversion

If you want to convert this program to the C64 or VIC-20, you'll need to change all print-tabs and characters.

```
   1 REM ---------------------------------
   2 REM -------- CAMEL RACE -------------
   3 REM ---------------------------------
   4 REM -------- by R Webb -------------
   5 REM ---------------------------------
  10MODE1
  20COLOUR1
  30VDU23;8202;0;0;0;
  40 VDU23,240,0,3,3,7,15,127,95,95
  50 VDU23,241,0,14,139,143,204,252,252,240
  60 VDU 23,242,31,28,20,18,114,70,0,0
  70 VDU23,243,248,24,24,120,8,8,0,0
  80 VDU23,244,31,28,20,20,20,20,0,0
  90 VDU23,245,248,24,24,56,40,40,0,0
  95 VDU23,246,100,44,40,38,118,80,16,16
  99 RESTORE:T=100:RC=0
 100 CLS:GOSUB200:REM - INSTRUCTIONS-
 110 MV=0:C1=0:C2=0:C3=0:C4=0:C5=0:C6=0
 120 CLS:GOSUB140:REM --- START ---
 130 CLS:GOSUB500:REM --- BETTING ---
 140 CLS:GOSUB700:REM ---- RACE ---
 145 GOSUB1000:REM - -- WIN? ----
 146 GOTO110
 160 PRINT'YOU HAVE THE TOTAL OF '";T
 170 PRINT'GOOD LUCK'"
 180 RC=RC+1
 190 PRINT'      RACE  ";RC:FORX=1TO500:NEXTX:RET
URN
 200 REM ---------- INSTRUCTIONS ------
 201 FORS=1TO3:FORSND=1TO7:READN,D
 202 SOUND1,-14,N,4:FORX=1TOD:NEXTX
 203 NEXTSND,S
 204
 210 FORX=1TO38STEP2
 220 FOR XX=100 TO 300:NEXTXX
 230 COLOUR2
 240 PRINTTAB(X,1)CHR$(240):CHR$(241)
 250 PRINTTAB(X,2)CHR$(244):CHR$(245)
 260 NEXTX
 270 FORX=1TO5:PRINT:NEXTX
 300 PRINTTAB(8) C A M E L   R A C E
 290 PRINTTAB(8)"-------------------"
 300 PRINT:PRINT
 310 PRINT'INSTRUCTIONS:-"
 320 PRINT ------------'
 330 PRINT    Welcome' to the camel races"
 340 PRINT' The idea of the game is to gain as mu
ch money as you can within 6 camel races'
 350 PRINT' Each player starts with  100 and each
 camel has its own odds."
 360 PRINT:PRINT
 365 PRINT"Press any key to start":PRINT:PRINT:PR
INT:PRINT
```

```
  370  FORX=1TO38STEP2
  380  PRINTTAB(X,20)CHR$(240);CHR$(241)
  390 PRINTTAB(X,29)CHR$(244);CHR$(245)
  400  NEXTX
  410 A$=GET$:IFA$=""THEN410
  420 RETURN
  300 REM ----- BET ------
  510 PRINTTAB(9)"BETTING LIST"
  520 PRINTTAB(9)"------ ----"
  530 PRINT:PRINT:PRINT
  540 COLOUR1:PRINT"NUMBER 1. LUCKY LAD      1/1";P
RINT
  550 PRINT'        2. WONDER WALLY  2/1":PRINT
  560 PRINT'        3. HUMP HREY     4/1":PRINT
  570 PRINT'        4. SPEEDY SAM   16/1":PRINT
  580 PRINT'        5. IDLE HENRY   32/1":PRINT
  590 PRINT'        6. BAD BOY      64/1":PRINT

  600PRINT:PRINT
  610 COLOUR2
  620 PRINT"Which camel do you wish to bet on (1-6
)
  630 INPUTCM
  640 IFINT(CM)>6 OR INT(CM)<1THEN630
  650 PRINT"How much do you wish to gamble?"
  660 INPUT BT
  670 IFINT(BT)>T OR INT(BT)<0THEN660
  675 T=T-BT
  680 RETURN
  700 PRINT"  R A C E ";RC
  710 PRINT"---- ----------"
  720 FORX=1TO1000:NEXTX
  730 CLS
  732 FORTREE=1TO5:PRINTTAB(RND(30),0);CHR$(246);P
RINTTAB(RND(30),1),CHR$(246):NEXTTREE
  735 PRINT:PRINT"------------------------------ ----
- --- - (FORX=2TO29STEP2

  736 PRINT"(";X/2;")"
  737PRINT"( )"(PRINT
 ----------'
```

```
  739 NEXT
  740 Q=RND(80)
  750 IFQ<16THENW=1:OD=1:L1=4:L2=5:C1=C1+1:MV=C1:G
OTO810
  760 IFQ<31THENW=2:OD=2 L1=7 L2=8:C2=C2+1:MV=C2:
GOTO810
  770 IF Q<45THEN W=3:OD=4:L1=10:L2=11 C3=C3+1:MV=
C3:GOTO 810
  780 IFQ<58THENW=4:OD=16:L1=13:L2=14:C4=C4+1 MV=C
4:GOTO 810
  790 IFQ<70THENW=5:OD=32:L1=16:L2=17:C5=C5+1:MV=C
5:GOTO810
  800 IFQ<81THENW=6:OD=64:L1=19:L2=20:C6=C6+1:MV=C
6
  810 PRINTTAB(MV+4,L1)CHR$(240);CHR$(241)TAB(4+MV
,L2)CHR$(242);CHR$(243)TAB(4+MV-1,L1)" "TAB(4+MV-1
,L2)" "TAB(4+MV,L2)CHR$(244);CHR$(245):IFMV=32THEN
RETURN ELSEGOTO740
  999 REM ----------
 1000 REM --------WIN?----------
 1001 REM ----------
 1010 FORX=1TO6000:NEXT:CLS
 1020 PRINTTAB(4,4)"The number ";W;" came in at ";
OD;"/1"
 1030 IF W=CM THENT=T+BT+(OD*BT):PRINT:PRINT"   Yo
u won' Congratulations!
 1035 IFT=0THENPRINT:PRINT"You lostud ";RC;" racea
";PRINT:PRINT" UNLUCKY!":GOTO1500
 1040 PRINT:PRINT"  Your total = ";T
 1042 PRINTTAB(4,16)"PRESS ANY KEY TO CONTINUE"

 1045 A$=GET$:IFA$=""THEN1042
 1050 COLOUR2:RETURN
 1500 INPUT"Do you wish to play this game again(Y/
N)";Q$
 1520 IFQ$="Y"THEN10
 1530 CLS:GOTO1530
 2000 DATA 56,10,56,10,56,10,67,10,72,10,72,10,29,
30,56,10,56,10,67,10,72,10,72,10,29,30,56,10
,56,10,56,10,67,10,72,10,72,10,29,30
```

IF YOU USE YOUR COMPUTER TO PLAY GAMES, THEN YOU CAN'T AFFORD TO MISS.

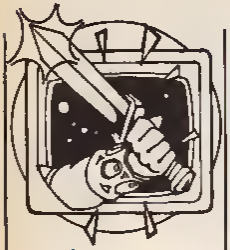
Computer GAMER

This fantastic new magazine appears on March 22 1985 and on the fourth Friday of every month after at the price of 95p.

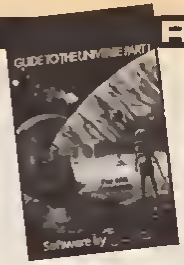
Each issue will be produced in cooperation with Escaan our Interplanetary Adviser who on his home planet, Aargon, is a member of the Association of Supreme Players. He will be monitoring developments in the games industry and advising Computer Gamer readers with all their gaming problems. Included in each issue will be pages of review of the latest games releases, special Adventure features and a help-line, invaluable articles on how to 'crack' specific games a high-score page, exciting programs to type in for most of the popular home computers, news, competitions, reviews of peripherals and computers themselves if relevent to the games field and LOTS more.

Also, all readers of Computer Gamer will have the opportunity to join our tremendous Reader's Club — each member will receive a membership card and a regular newsletter which will contain up-to-the-minute news and all sorts of offers on a variety of products.

So all-in-all there's no way you can afford to be left out of the great new revolution in games computing — rush out and buy your copy NOW!



VENTURES



This week Peter Sweasey sounds off, and reviews Hellfire from Melbourne House, Scott Adams' Spiderman and Fantasy's Backpackers Guide to the Universe

Ventures is back, in strong form as always. Step with me into the world of adventures and ventures (arcade adventures). This week I shall be looking at Hellfire, the Melbourne House game first seen at the PCW show last September. Spiderman, from Scott Adams, and Fantasy's spectacular Backpackers' Guide To The Universe. But first...

Opinion

Adventure games are getting stuck in a rut. And if they don't move out fast, they might die away all together.

What do I mean? Well, they're blighted with lack of originality. The number of times I have reviewed games set in far-off lands, where wizards are wise, damsels distressed, dungeons numerous and Urg monsters deadly, is far too many. Even as I write, they are still rolling off the keyboards. Kentilla and Sorcerer Of Claymourge Castle are some recent examples. Some adventure addicts will claim, admittedly with some justification, that each game has it's own subtle differences. But to Joe Public, or even Joe Public's distributor, they all look the same. Which means neither the public nor the shops will buy.

Of course, there are other themes, but these too are clichéd. Outer space, nuclear holocaust, haunted houses, pirates, spy games plus a fair number of time travel games, are all well covered. But little else is released. Why? There are so many possible fields for development — after all, adventures reflect life. Only occasionally — with something like Urban Upstart, Macbeth or Sherlock Holmes — do we really see originality (and look how well they have sold).

If the companies keep churning out the same games, only the very good, like the Level 9 games, or the very well advertised, like Kentilla, will survive. Which is a shame. In this topic, The Quill is both a gift and a curse: it gives ordinary people the chance to write games, but they all turn out the same!

Ventures aren't suffering as much since people seem to be more experimental. But even so, there is a limit to how many Manic Miner games the public can stomach.

So, software companies, think original!

Reviews

First up, Melbourne House presents an adventure called Hellfire. Someone once said computer games run in cycles, and so they do, as here we have another Greek game, hot on the feet of Gift From The Gods, by Ocean. As Ulysses, climb the slopes of Mount Olympus, avoiding falling boulders and the deadly Gorgon, outwit the Minotaurs in the Temple of Knossos, and shoot the reptilian assassin and fireball thrower in The Maze. Oh well, at least it isn't as complicated as Gift From The Gods.

My first moan is that the apparent screen shots on the back cover aren't the same as in the game. They appear to have been 'touched up' with colour, giving a misleading impression. In fact the first screen is almost entirely black and white, rather drab, and resembles an odd Kong game as you bounce up the hillocks.

At once, you notice the lack of sound — there isn't a beep to the game. Things are little better by screen two. Here strategy is important, but once a route is worked out any fun dwindles. The final screen is worse. It can hardly be called a maze: one screen in size, and in large 3D. This task is scandalously simple. Once completed, you return to screen one, which is now harder.

Graphics are reasonable, but the screens take a little while to be drawn. Animation is quite good. In general, this game is a disappointment. It's nowhere near as good as Sir Lancelot, Melbourne House's last offering, yet that was a 16K game. The lack of colour and sound, with only three, although three different, screens, represents a poor value and boring package. Melbourne House reckons the game should take a week to complete — hardly a value package — and I completed it in two hours. Ventures rating XX — don't buy it! Hellfire costs £6.95 and is available on the 48K Spectrum.

On to adventures. The Hulk was a big seller last year, despite being only average in many reviewers' opinions. Now comes the second in the Questprobe series, written by the famous Scott Adams. This time your skills lie not in turning green — you wear a red costume to swing around an all American city as web-spinning Spiderman. The tape is well packaged and includes a miniature Marvel comic, which I enjoyed reading!

The point of the game is similar to The Hulk — mainly collecting gems, and trying to find out more about the mysterious overseer of the series, The Chief Examiner. Out to stop you are a large number of distinctly nasty adversaries, like Hydroman and The Lizard. Strangely, these villains all appear to have been deformed accidentally by various scientific experiments, which does not say much for American life! Another task is to work out how to manufacture your web. Graphics are, as usual, the best in the business.

Spiderman is a lot more fun than The Hulk. There is more to do, and there are more locations to do it in. The vocabulary is more friendly: now it accepts THEN, commas, full sentences and DROP ALL. The characters will talk to you, and presentation is good. The problems are more imaginative.

I enjoyed this game a lot. Maybe I just preferred leaping up walls to ripping open my shirt! I also liked the range of difficulty in the problems. The player can get just far enough to maintain his interest. Ventures rating XXXX. Graphics versions are available at £9.95 for the Spectrum and Commodore, text only costs £7.95 for the other popular brands. Be warned, text is sparse.

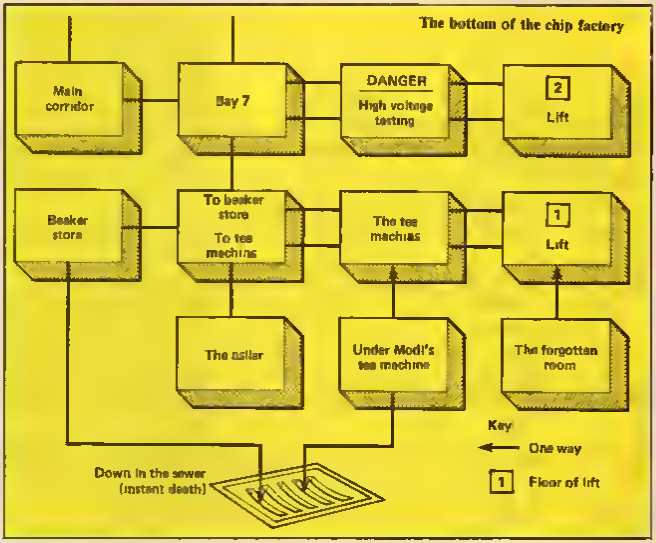
I have one query Marvel seems to be using up the best known characters first After the Fantastic Four, who are next, who can they use? Disturbing thoughts, particularly as this is a series of 12

Finally, a slightly late look at The Backpackers' Guide To The Universe, from Fantasy As super-hero Ziggy, you discover that the infinitely evil Scarthas has given just 24 hours' notice before he pulls the **Great plug**, whereupon the whole of the universe will flow down the plughole

To save reality, you decide help is needed, so you visit the Caverns Of Exile Here, a variety of odd and, to be honest, slightly obnoxious, aliens are held in cages, for their own good, or everyone else's You enter the Caverns to find them, carrying a backpack which will hold a seemingly infinite number of objects

The problem is, once the creatures are in the pack, you have to keep them alive This is not just a case of finding food — oh no The Double Headed Emu of Quark, for example, is severely schizophrenic, and requires a book of Zilurian love poems, so that one of it's heads can read the more angry one to sleep! This and other vital information can be found on the Backpackers' Guide To The Universe, which is on side one of the cassette On side two is the game

In practice, it is fun to play



The graphics are extremely attractive and smooth, and colour expertly used There are wraiths to be shot, but they are not as interesting as most Fantasy aliens and tend to hinder your progress, rather than supply a challenge Backpacking around, trying to find which objects suit which creatures, is a daunting task, but fun

Again, this game has no sound Backpackers' Guide is a very complex arcventure It is perhaps a bit too complex, and quite pricey, at £7 50 Also, it lacks the action content of, say, Pyjamarama In all, a Ventures rating of XXX — interesting but a bit boring I have high hopes for the second of this trilogy Incidentally, I'll be reviewing another Fantasy game, Drive In, next week.

The Map

Here is part one of our map of Hewson's excellent Technician Ted This section stems out from The Main Corridor, as seen on the inlay card I would be interested to see any of your maps, and the next part of this will be next time, which will also include a list of tasks to follow the first three

Back next time with a bumper helpline, more of the map, and reviews of Drive In, Macbeth, Pitfall II and more. Happy venturing!

VIC-20 PROGRAM

FAST AND FURIOUS

This brilliant game by Mark Fisher runs on the unexpanded VIC-20. You won't believe a game could be this good on your machine!

Move around the platforms collecting handbags by running underneath them. After you have collected five bags a key will appear in the top right corner. Collect the key and run to the reversed H in the bottom left corner.

This takes you on to the next level. Each time you clear a screen you must collect one more bag on the next one.

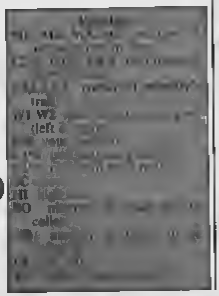
If this sounds too easy, on each of the four platforms a monster is patrolling. It's touch is fatal.

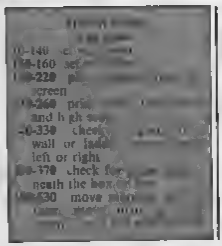
You have 40 seconds and three lives to complete your task. You won 20 points for each bag and 50 points for the key.

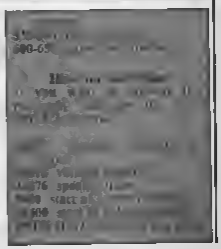
Use key **A** to go left, **L** for right, **P** for up and **Z** for down. Load the game in two parts. The first part is the data for the new character set and the characters for the game.

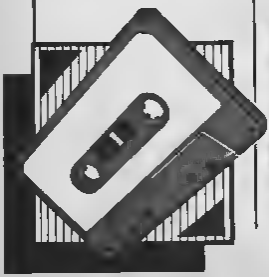
Once you have loaded and run this, the micro news itself. It gives you the prompt to load part two, which you should then run.

Listing 1









Listing 2

```
10 POKE36879,232:POKE36869,255:HI=0
20 Z=30720:SC=0:LI=3:NB=0
25 PRINT"■":POKE36878,143
30 READA,B,C,D,E
40 IFA=0THEN140
50 POKZX=ATOBSTEPC:POKEZX,D:POKEZX+Z,E:NEXTZX
60 GOTO30
70 DATA7724,7745,1,33,0,7745,8185,22,35,0,8164,8185,1,33,0
80 DATA7724,8164,22,34,0,7813,7832,1,33,0,7801,7820,1,33,0
90 DATA7888,8088,1,33,0,8077,8088,1,33,0
100 DATA7816,7882,22,40,0,7823,7883,22,40,0,7830,7886,22,40,0
110 DATA7882,7958,22,40,0,7900,7974,22,40,0,7914,7980,22,40,0
120 DATA7952,8038,22,40,0,8000,8069,22,40,0,8004,8070,22,40,0
130 DATA8062,8149,22,40,0,8086,8152,22,40,0,8084,8150,22,40,0,0,0,0,0,0
140 POKE7724,39:POKE7745,37:POKE8164,38:POKE8185,39
150 M1=7791:M2=7836:M3=7867:M4=8074:PM=8143:W1=1:W2=-1:KY=0:SS=36875
160 C1=0:C2=0:C3=0:C4=0:C1%=32:C2%=32:C3%=32:C4%=32:BO=NB
170 P1=7755:FORL1=1TO4
180 FORL2=1TO7
190 RP=INT(1+18*RND(1))
200 IFPEEK(P1+RP-22)=40THEN180
210 POKESS,240:POKEP1+RP,43:POKE(P1+RP+Z),1:POKESS,0
220 NEXTL2:P1=P1+88:NEXTL1
224 POKEPM,41
230 T1$="000000"
240 KM=PEEK(197)
250 PRINT"■■■SCORE";SC:PRINT"■"TAB(12)"HIGH";HI
260 PRINT"■■■■TIME ";T1$:PRINT"■"TAB(14)"MEN";L1
265 IFT1$="000060"THENM$="    ■YOUR TIME RAN OUT ":L1=L1-1:GOTO530
270 IFPEEK(PM+22)=40AMDPEEK(PM-22)=40DRPEEK(PM+22)=44THEN320
280 IFPEEK(PM-1)=34ORPEEK(PM-1)=45THEN300
290 IFKM=17THENPOKEPM,C1%:POKEPM+Z,C1:PM=PM-1:POKEPM,41:POKEPM+Z,0:POKESS,200
295 POKESS,0
300 IFPEEK(PM+1)=35THEN320
310 IFKM=21THENPOKEPM,C1%:POKEPM+Z,C1:PM=PM+1:POKEPM,41:POKEPM+Z,0:POKESS,200
320 POKESS,0
330 C1%=32:C1=0:IFPEEK(PM-22)=40THENC1%=40:C1=0
350 IFBO=1THENPOKE7788,40:POKE8143,45:POKE7788+Z,7:POKE8143+Z,7:BO=0
360 IFPEEK(PM-22)=46THENIFPOKESS,200:POKEPM-22,32:SC=SC+50:KY=1
365 IFPEEK(PM-1)=45ANDKY=1THENM$="    ■CONGRATULATIONS    ":NB=NB+1:MD=1:GOTO540
370 IFPEEK(PM-66)=33THEN390
380 IFKM=13THENPOKEPM,40:POKEPM+Z,0:PM=PM-22:POKEPM,42:POKEPM+Z,0:POKESS,200
385 POKESS,0
390 POKEM1,32:M1=M1+W1:POKEM1,44:POKEM1+Z,0
395 IFPEEK(PM-22)=43THENIFPOKESS,120:POKEPM-22,32:SC=SC+20:BO=BO-1
400 POKEM2,C2%:POKEM2+Z,C2:M2=M2+W2:POKEM2,44:POKEM2+Z,0
410 POKEM3,C3%:POKEM3+Z,C3:M3=M3+W1:POKEM3,44:POKEM3+Z,0
420 POKEM4,C4%:POKEM4+Z,C4:M4=M4+W2:POKEM4,44:POKEM4+Z,0
425 IFPEEK(PM)=44ORPEEK(PM-1)=44ORPEEK(PM+1)=44THEN335
430 IFM1=7810THENW1=-1:W2=1
440 IFM1=7791THENW1=1:W2=-1
450 C2%=32:C2=0:IFPEEK(M2-22)=40ORPEEK(M2-22)=42THENC2%=40:C2=0
460 C3%=32:C3=0:IFPEEK(M3-22)=40ORPEEK(M3-22)=42THENC3%=40:C3=0
470 C4%=32:C4=0:IFPEEK(M4-22)=40ORPEEK(M4-22)=42THENC4%=40:C4=0
480 IFPEEK(PM+22)=40THEN300
490 GOTO240
500 C1%=32:C1=0:IFPEEK(PM-66)()33THENC1%=40:C1=0
510 IFKM=33THENPOKEPM,C1%:POKEPM+Z,C1:PM=PM+22:POKEPM,42:POKEPM+Z,0:POKESS,200
515 POKESS,0
520 IFPEEK(PM-1)=33THEN320
530 GOTO240
535 A0="    ■SORRY YOUR DEMO    ":POKEPM,47:L1=L1-1
536 FORL=225TO255STEP.1:POKESS,L:NEXT:POKESS,0
540 PRINT"■":A0:IFMD=1THENGOSUB640
545 FORT=1TO1000:NEXTT:MD=0:POKESS,0
550 PRINT"■                    "
560 IFNB)15THENNB=15
570 IFL1=0THEN600
580 RESTORE:GOTO25
600 PRINT"■      ■GAME OVER■      "
610 PRINT"■■      HIT F1 KEY      "
615 IFSC>HITHENHI=SC
620 DETA$:IFA$()"■"THEN620
630 RESTORE:GOTO20
640 POKEM1,47:POKEM2,47:POKEM3,47:POKEM4,47
650 FORL=128TO255:POKESS,180:POKE36878,L:NEXT:POKESS,0:RETURN
```

C64 PROGRAM

LET'S TWIST AGAIN

This pontoon program by P J Cockerton means you can gamble without losing money

This is a Pontoon program which has all the features of the original including aces high or low and five card tricks

After the title page you are given £100 and you must bet on every game you play When you have placed your bet the reverse sides of two playing cards are shown top left is your card and bottom left belongs to the computer

You must keep taking an extra card by pressing T — twist — until the sum of your cards adds up to 21, or as near to that figure as you can get If the total exceeds 21 then you bust Once you press S — stick — then it is the computer's turn

The game uses full size playing cards which are fanned out so you can see all your cards at once

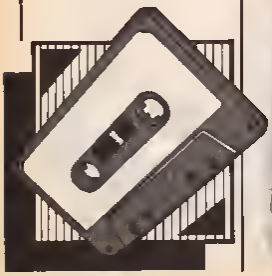
Variables

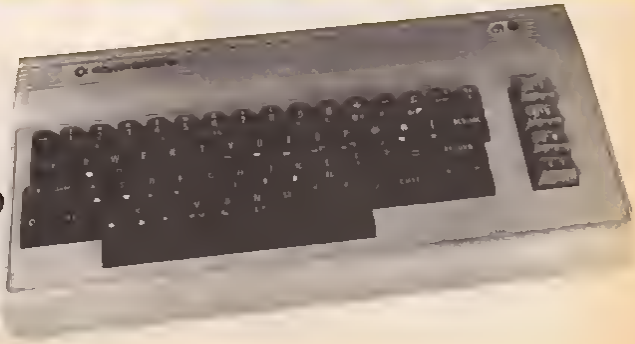
CS card outlines
BKS pattern on reverse of cards
AXS, BZS, CZS, DZS, EZS, FZS, KKS card positioning strings
C random card numbers
SC addition of cards
A number of aces in hand
Y number of games won
ME games won by computer

P1 sum total of cards
C1-C9, D1 D9 stop random card numbers appearing twice
AS used to read data
SY card symbols
TI positioning of symbols
BR black or red symbols
G your turn, computer's turn
XL send to title page only at start of new game
CO colour memory map locations
VO volume control
WF wave form
AD attack and delay
HI high frequency
LO low frequency
SR sustain and release
Q five card trick

How it works

30-80 set up string variables
110 sets up screen for play
215 gets random card number
216 gets random symbols
220-201 POKEs card number and symbols onto screen
269-272 prints picture cards
287 295 win, bust etc routines
2500-2600 status page information
3000-3020 check random cards only appear once in game
4000-4010 symbols for picture card
5000-5030 card flick sound effect
6000-6020 3D pontoon display
8000 title page routine





```
19 HV=A2 TO 5427:TL=1101:Q=0
20 IFX2=0THEN20
20 PRINT"[illegible]          COMMODORE 64 FONTOON                    "
21 FOPT=1024TO1344STEP40:POKET,160:POKET+CO,2:NEXT
22 FOPT=1984TO2023:POKET,160:POKET+CO,2:NEXTT
23 FOPT=2022TO1063STEP -40:POKET,160:POKET+CO,2:NEXTT:X2=1
25 IFX2=5THEN250
26 REM **** -- ************[INFORMATION FOR LINES 30 & 35]*********************
27 REM A2$=[1 CRSR RIGHT]  B2$=[HOME][13 CRSR DOWN]  C2$=[HOME][1 CRSR DOWN]
28 REM D2$=[1 CRSR UP][12 CRSR RIGHT]  E2$=[HOME][5 CRSR DOWN] F2$=[4 CRSR RIGHT]
29 REM K$=[1 CRSR DOWN][7 CRSR LEFT] ****************************************
30 A2$="[illegible]":B2$= [illegible]":C2$="[illegible]":D2$="[illegible]":E2$= [illegible]:F2$= [illegible]
35 K$="[illegible]"
40 C$="[illegible]
50 C$=C$+ [illegible]
60 C$=C$+"[illegible]
70 B$=' [illegible]
80 $K$=BK$+'[illegible]'
90 IFX2=0THEN800
110 PRINTC2$:A2$:C$:C2$:A2$:BK$:PRINT:B2$:A2$:C$:B2$:A2$:BK$
190 IFG=0THENPRINTB2$:D2$:"[illegible]WIST OR [illegible]TICK        ":SC
200 GETA$:IFA$="T"THENPRINTB2$:D2$:'                                    ":GOTO210
204 IFA$="S"THENPRINT"[illegible]STICK ON ":SC:A2$="[illegible]":Q=0:G=1:SC=0:A=0:TL=1581
205 IFA$="S"THENGOTO210
206 IFA$<>"T"ORA$<>"S"THEN200
210 IFG=0THENPRINTC2$:A2$:C$:PRINTC2$:A2$:
212 GOSUB5000
213 IFG=1THENPRINTB2$:A2$:C$:PRINTB2$:A2$:
214 A2$=A2$+"[illegible]":TL=TL+5
215 C=INT(RND(1)*13)+1
216 SY=INT(RND(1)*4)+1:GOSUB4550:GOSUB3050
220 IFC=1THENPOKETL+CO,8R:POKETL,1:POKETL+CO+163,8R:POKETL+163,SY
221 IFC=1THENPOKETL+CO+326,8R:POKETL+326,1:A=A+1:SC=SC+10
222 IFC=2THENPOKETL+CO,8R:POKETL,50:POKETL+CO+83,8R:POKETL+83,SY
223 IFC=2THENPOKETL+CO+243,8R:POKETL+243,SY:POKETL+CO+326,8R:POKETL+326,50
224 IFC=3THENPOKETL+CO,8R:POKETL,51:POKETL+CO+43,8R:POKETL+43,SY
225 IFC=3THENPOKETL+CO+163,8R:POKETL+163,SY
226 IFC=3THENPOKETL+CO+283,8R:POKETL+283,SY:POKETL+CO+326,8R:POKETL+326,51
227 IFC=4THENPOKETL+CO,8R:POKETL,52:POKETL+CO+41,8R:POKETL+41,SY
228 IFC=4THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+281,8R:POKETL+281,SY
229 IFC=4THENPOKETL+CO+285,8R:POKETL+285,SY:POKETL+CO+326,8R:POKETL+326,52
230 IFC=5THENPOKETL+CO,8R:POKETL,53:POKETL+CO+41,8R:POKETL+41,SY
231 IFC=5THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+281,8R:POKETL+281,SY
232 IFC=5THENPOKETL+CO+163,8R:POKETL+163,SY
233 IFC=5THENPOKETL+CO+255,8R:POKETL+285,SY:POKETL+CO+326,8R:POKETL+326,53
234 IFC=6THENPOKETL+CO,8R:POKETL,54:POKETL+CO+41,8R:POKETL+41,SY
235 IFC=6THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+281,8R:POKETL+281,SY
236 IFC=6THENPOKETL+CO+161,8R:POKETL+161,SY:POKETL+CO+165,8R:POKETL+165,SY
237 IFC=6THENPOKETL+CO+255,8R:POKETL+285,SY:POKETL+CO+326,8R:POKETL+326,54
238 IFC=7THENPOKETL+CO,8R:POKETL,55:POKETL+CO+41,8R:POKETL+41,SY
239 IFC=7THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+281,8R:POKETL+281,SY
240 IFC=7THENPOKETL+CO+253,8R:POKETL+283,SY
241 IFC=7THENPOKETL+CO+161,8R:POKETL+161,SY:POKETL+CO+165,8R:POKETL+165,SY
242 IFC=7THENPOKETL+CO+285,8R:POKETL+285,SY:POKETL+CO+326,8R:POKETL+326,55
243 IFC=8THENPOKETL+CO,8R:POKETL,56:POKETL+CO+41,8R:POKETL+41,SY
244 IFC=8THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+121,8R:POKETL+121,SY
246 IFC=8THENPOKETL+CO+125,8R:POKETL+125,SY:POKETL+CO+281,8R:POKETL+281,SY
247 IFC=8THENPOKETL+CO+285,8R:POKETL+285,SY:POKETL+CO+285,8R:POKETL+285,SY
248 IFC=8THENPOKETL+CO+281,8R:POKETL+281,SY:POKETL+CO+326,8R:POKETL+326,56
249 IFC=9THENPOKETL+CO,8R:POKETL,57:POKETL+CO+41,8R:POKETL+41,SY
250 IFC=9THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+121,8R:POKETL+121,SY
251 IFC=9THENPOKETL+CO+125,8R:POKETL+125,SY:POKETL+CO+281,8R:POKETL+281,SY
252 IFC=9THENPOKETL+CO+285,8R:POKETL+285,SY:POKETL+CO+285,8R:POKETL+285,SY
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253 IFC=9THENPOKETL+CO+243,8R:POKETL+243,SY
254 IFC=9THENPOKETL+CO+281,8R:POKETL+281,SY:POKETL+CO+326,8R:POKETL+326,57
255 IFC=10THENPOKETL+CO,8R:POKETL,49:POKETL+CO+1,BR:POKETL+1,48:POKETL+CO+41,BR:
POKETL+41,SY
256 IFC=10THENPOKETL+CO+45,8R:POKETL+45,SY:POKETL+CO+121,8R:POKETL+121,SY
257 IFC=10THENPOKETL+CO+125,BR:POKETL+125,SY:POKETL+CO+201,8R:POKETL+201,SY
258 IFC=10THENPOKETL+CO+205,BR:POKETL+205,SY:POKETL+CO+285,8R:POKETL+285,SY
259 IFC=10THENPOKETL+CO+243,BR:POKETL+243,SY:POKETL+CO+83,8R:POKETL+83,SY
260 IFC=10THENPOKETL+CO+281,8R:POKETL+281,SY:POKETL+CO+325,8R:POKETL+325,49:POKE
TL+CO+326,BR
261 IFC=10THENPOKETL+326,48
262 IFC=11THENKK=10
263 IFC=12THENKK=17
264 IFC=13THENKK=11
266 IFC=11ORC=12ORC=13THENPOKETL+CO,BR:POKETL,KK:POKETL+CO+6,BR:POKETL+6,SY
267 IFC=11ORC=12ORC=13THEIPOKETL+CO+326,BR:POKETL+326,KK:POKETL+CO+320,BR:POKETL
+320,SY
268 IFC=11ORC=12ORC=13THENPRINT"[redacted]";KK$;" [redacted]";KK$;" | [redacted] | ";
269 IFC=11ORC=12ORC=13THENPRINTKK$;" | [redacted] ";KK$;" [redacted] ";KK$;
270 IFC=11ORC=12ORC=13THENPRINT" [redacted] * [redacted] ";KK$;" [redacted] * [redacted] ";KK$;" [redacted] * [redacted]
;
271 IFC=11ORC=12ORC=13THENPRINTKK$;"[redacted]";SC=SC+10
272 IFC<11THENSC=SC+C
273 IFSC>21ANDA>0THENP=A-1:SC=SC-10
275 Q=Q+1:GOSUB400
281 IFG=0ANDSC>21THENPRINT8Z$:DZ$;"YOU HAVE BUST          ";SC:ME=ME+1
282 IFG=0ANDSC>21THENFORT=1TO5000:NEXT:MY=MY-BE:GOTO2500
283 IFG=1ANDSC>21THENPRINTRZ$;"[redacted]YOU WIN,I HAVE BUST";SC:YO=YO+1
284 IFG=1ANDSC>21THENFORT=1TO5000:NEXT:MY=MY+BE*2:GOTO2500
285 IFG=1THENPRINT"[redacted]                                                    "
286 IFG=0THENPL=SC
287 IFG=1ANDSC>PLANDPL<21THENPRINTBZ$;DZ$;"I WIN THIS GAME   ";SC
288 IFG=1ANDSC>PLANDPL<21 THENFORT=1TO4000:NEXTT:MY=MY-BE:ME=ME+1:GOTO2500
289 IFG=1THENPRINTDZ$;DZ$;"MY TURN TO PLAY   ";SC
290 IFG=1THENFORT=1TO1000:NEXT:GOTO210
295 GOTO170
400 IFQ=5ANDSC<=21THEIPRINTBZ$'DZ$;' FIVE CARD TRICK      ";SC:FORT=1TO3000:NEXT
410 IFQ=5ANDSC<=21ANDG=0THENPL=SC:Q=0:YO=YO+1:MY=MY+BE*2:GOTO2500
420 IFQ=5ANDSC<=21ANDG=1THENQ=0:ME=ME+1:MY=MY-BE:GOTO2500
430 RETURN
2500 GOSUB8000:PRINT"[redacted]                                                    [redacted]":Q=0
2505 FORT=1024TO1344STEP40:POKET,160:POKET+CO,0:NEXTT
2508 FORT=1984TO2023:POKET,160:POKET+CO,0:NEXTT
2510 FORT=2023TO1984STEP-40:POKET,160:POKET+CO,0:NEXTT
2511 IFME=0ANDYO=0THENPRINTBZ$;:GOTO2531
2515 IFYO=1THENPRINTEZ$;FZ$;FZ$;"YOU HAVE WON";YO"GAME":GOTO2525
2516 IFYO=0THENPRINTEZ$;FZ$;"[redacted]":GOTO2525
2520 PRINTEZ$;FZ$'FZ$;":OU HAVE WON",YO"GAMES"
2525 IFME=1THENPRINTFZ$;FZ$;"I HAVE WON ";ME"GAME":GOTO2531
2526 IFME=0THENPRINT"[redacted]":GOTO2531
2530 PRINTFZ$;FZ$;"I HAVE WON ";ME"GAMES"
2531 PRINTFZ$;"[redacted]OU HAVE £";MY"IN CASH"
2532 IFMY<1THEN9300
2533 IFMY>999THEN9950
2535 PRINT"[redacted](MAXIMUM £50)"
2540 PRINT"[redacted]HOW MICH WOULD YOU LIKE TO BEY";:INPUTBE
2550 IFBE<1ORBE>50THENPRINT"[redacted]":GOTO2500
2555 IFBE>MYTHENPRINT"[redacted]YOU DON'T HAVE[redacted] ";BE"TO BET":FORT=1TO2500:NEXT
2556 IFBE>MYTHENPRINT"[redacted]":GOTO2500
2557 IFMY-BE<0THENPRINT"[redacted]TOO RISKY !!!"
2558 FORT=1TO20:GOSUB5010:NEXTT
2600 FORT=1TO1000:NEXT:RZ$="[redacted]":A=0:SC=0:PL=0:G=0:TL=101:GOTO20
3000 IFC=C1ANDSY=01THEN215
3001 IFC=C2ANDSY=02THEN215
3002 IFC=C3ANDSY=03THEN215
```
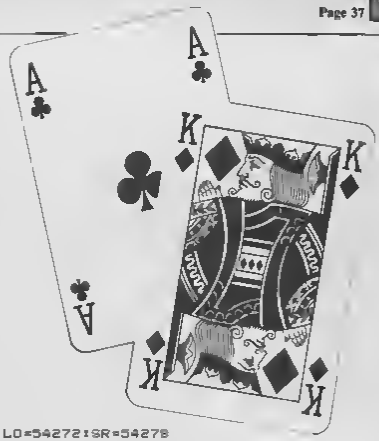
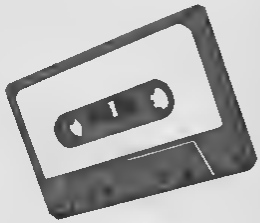
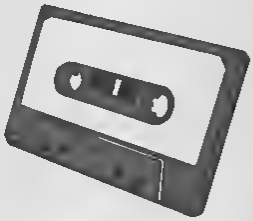

```
3003 IFC=C4ANDSY=D4THEN215
3004 IFC=C5ANDSY=D5THEN215
3005 IFC=C6ANDSY=D6THEN215
3006 IFC=C7ANDSY=D7THEN215
3007 IFC=C8ANDSY=D8THEN215
3008 IFC=C9ANDSY=D9THEN215
3010 IFC1=0THENC1=C:D1=SY:RETURN
3011 IFC2=0THENC2=C:D2=SY:RETURN
3012 IFC3=0THENC3=C:D3=SY:RETURN
3013 IFC4=0THENC4=C:D4=SY:RETURN
3014 IFC5=0THENC5=C:D5=SY:RETURN
3015 IFC6=0THENC6=C:D6=SY:RETURN
3016 IFC7=0THENC7=C:D7=SY:RETURN
3017 IFC8=0THENC8=C:D8=SY:RETURN
3018 IFC9=0THENC9=C:D9=SY:RETURN
3020 RETURN
4000 IFSY=1THENSY=65:BR=0
4002 IFSY=2THENSY=83:BR=2
4004 IFSY=3THENSY=90:BR=2
4006 IFSY=4THENSY=88:BR=0
4013 RETURN
5000 VD=54236:WF=54276:AD=54277:HI=54273:LO=54272:SR=54278
5010 POKEVD,2:POKEAD,32:POKESR,33:POKEHI,34:POKELO,75:POKEWF,128
5011 FORM=1TO10:NEXTM:POKEWF,15
5030 RETURN
6000 PRINT"[illegible]"
6004 PRINT"[illegible]"
6005 PRINT"[illegible]"
6010 PRINT"[illegible]"
6020 PRINT"[illegible]"
6024 C1=0:C2=0:C3=0:C4=0:C5=0:C6=0:C7=0:C8=0:C9=0
6025 D1=0:D2=0:D3=0:D4=0:D5=0:D6=0:D7=0:D8=0:D9=0
6030 RETURN
8001 POKE53280,7:POKE53281,7
8005 PRINT"[illegible]"
8010 FORT=1TO37:GOSUB5000
8020 PRINTCZ$)AZ$;C$;C2$)AZ$;BK$
8030 AZ$=AZ$+"[illegible]"
8040 NEXTT:PRINT"[illegible]"
8045 PRINTBZ$)"[illegible]";
8000 PRINT"[illegible]"
8010 PRINT"[illegible]"
8020 PRINT"[illegible]"
8030 PRINT"[illegible]"
8040 PRINT"[illegible]"
8045 PRINT"[illegible]"
8046 FORT=1TO20:GOSUB5010:NEXT
8050 IFDA$="←"THEN9250
8055 PRINTDA$)
8060 READDA$:FORT=1TO50:NEXTT:GOTO8050
8065 PRINT
9100 DATA"[illegible]","[illegible]","[illegible]","L","E","T","[illegible]","S","[illegible]","T","W","[illegible]","S[illegible]","A","G"
9110 DATA"A","I","N","[illegible]","[illegible]","[illegible]","E","Y","[illegible]","F","[illegible]","J","[illegible]","[illegible]","C"
9120 DATA"K","E","R","T","D","[illegible]",".","←"
9250 FORT=1TO2000:NEXTT
9255 POKE53280,6:POKE53281,7
9260 AZ$="[illegible]":YZ=5:CZ$="[illegible]":PRINT"[illegible]":GOTO25
9300 PRINTFZ$)"[illegible]YOU HAVE RUN OUT OF MONEY"
9301 PPINTFZ$)FZ$)"[illegible]PRESS [illegible]F1[illegible] TO PLAY AGAIN"
9302 PRINTFZ$)FZ$)"[illegible]PRESS [illegible]F7[illegible] TO END THE GAME"
9303 ,GETBE$:IFBE$="[illegible]"THENCLR:GOTO3
9304 IFBE$= [illegible]THENCLR:POKE53280,4:POKE53281,6:PRINT"[illegible]":END
9305 IFBE$<>"[illegible]"THEN9303
9550 PRINTFZ$)FZ$)"[illegible]YOU HAVE BROKE THE BANK":GOTO9301
```







Thumbs up

I would like to thank you for all the support you are giving the Oric Atmos

It may not be a very popular computer, but you are helping us Atmos owners gain more security in them

Keep up the good work

Claire Woods, Donegal Town

Look before you leap

While I congratulate Phil Abel on his calendar program for the C64 (HCW 95), here's a message for all C64 users who have been 'astonishing their friends' by telling them that the Battle of Trafalgar was fought on a Sunday it wasn't!

The 21st of October 1805 was a Monday! Phil has accounted for leap years in line numbers 80 and 100 by dividing by four, and normally every century year (1800, 1900 etc) would be a leap year by that method but to further compensate for the error in the solar year, only century years divisible by 400 are leap years (i e 1600, 2000 etc)

The year 1900, for example was not a leap year hence the error in the days of the battle above

The correction is simple, although it adds considerably to the process time of the main routine

Change

```
90 DA = 2 (not 7)
```

Add

```
85  IF (YE/100) - INT(YE
    100) = 0 AND (YE/400)
    - INT(YE/400) X X 0
    THEN MO(2) = 28
105  IF (A/100) INT(A/
    100) = 0 AND (A/400)
    - INT(A/400) X X 0
    THEN 120
```

Jan Andrews, Portsmouth

Thumbs up to Amstrad

I am the owner of an Amstrad CPC464 Each week I buy Home Computing Weekly magazine and I think it is a very good computer magazine In HCW 96, on the letters page I saw an item mentioning that programming articles would appear shortly

I have now seen some of these and I am very pleased with them

Could I please have a list of all Amstrad CPC464 tapes on the market?

Pascal Sondron, Ballinoon

If you want to know about software for the Amstrad then Amsoft is the best firm to contact at Brentwood Hse 169 Garman Rd Tottenham London N17

You're biased!

Every time I turn to the letters page of HCW, I look to see if there are any complaints directly concerning the reviews of games or what people thought of the magazine as a whole etc

It seems, although I am sure many readers write in to complain, HCW only published what suited it HCW publishes a lot of letters which make it look good, such as the letter entitled Plea from the heart, in HCW 98

This letter went on to say 'how good the mag is' I will be extremely surprised when a letter such as I have described is published

R Kavanagh, Scotland

Well, here it is, and we do publish critical as well as flattering letters Constructive criticism is what we're really after

Let's have some peace

Like I Hughes of Manchester, I also own a 16K Spectrum with Cheetah upgrade Now before all you readers jump up and down on your magazines, shouting 'Oh no! Not another pocket calculator owner', just read what I have to say.

I do wish people would stop telling others that they should have bought a Commodore instead of a Texas or a BBC instead of a Jupiter Ace. People bought their own computers for their own reasons and the last thing they need is people telling them they should have bought something else instead.

There's a choice on the market, so let people make their choice; after all, just think how boring it would be if there was only one computer on the market.

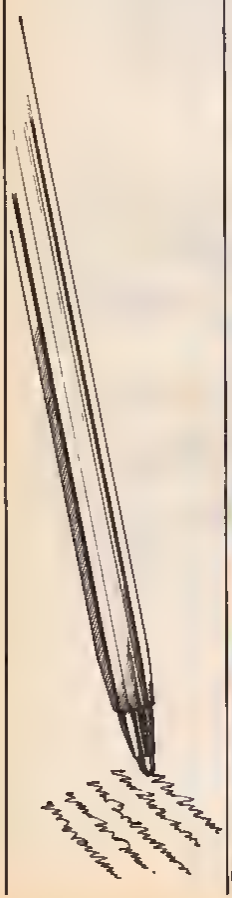
I have just received an AGF protocol joystick interface for my rubber-computer and was going to get a Wico three-way joystick to go with it. Unfortunately, the three-way has two independent fire buttons and AGF says that you shouldn't use joysticks with two independent firing actions because they don't comply with industry standards and may damage the computer.

Surely if this joystick was designed to be used directly with the Commodore and Atari sockets, then it shouldn't do any harm to a Spectrum if you're using an interface.

Could you please tell me if it's safe to use a three-way Wico stick, because I've put off buying any joystick until I find out.

Dave Brown, Winchester

The answer is no, it isn't safe You risk short-circuiting your computer, so don't try it



LETTERS PAGE

Four points to watch

I feel I must write to draw your attention to a few niggly points which let down an otherwise excellent mag.

Firstly when reading your letters pages I find that about 30 per cent of the letters have the same format, i.e. the reader asks for more reviews/listings and you reply with the standard reply (and rightly so) that you are only reflecting the state of the market. In my opinion one such letter with the appropriate reply would suffice each week.

Secondly, still on the subject of letters sometimes I see readers asking for help with various problems (number 98 for example has two such letters) but you never give the readers' full address so that other readers including me can help them out. Why is this?

Thirdly I find your star ratings on some of your software reviews a bit contradictory. A review for a certain piece of software can have equal or higher percentages in each of the four categories than another piece of software and yet have a lower star rating. Is the star rating a choice of the individual reviewer? If so then I can't see the point of having star ratings if they can't be used to make comparisons.

Finally the last point I must make is that practically every issue of your magazine contains one of those infuriatingly frustrating reviews with either no software house name, address, or worse still you don't say which machine it is for.

I'm sure that if these points were cleaned up a lot more people would sleep at night. Otherwise keep up the good work on an otherwise great mag.

Phil Cotterill, Birmingham

More for C16, please

I am a C16 owner and proud of it. But that's not why I've written in.

Since the C16 is new there's new software for it, so please could you put in programs and maybe some reviews too. Don't say it depends on the state of the market — I know that. But surely it's not much of a task to pop in the odd one or two.

Martin Johnston, Glasgow

Firstly we publish your letters, so it's up to you as the readers to send in your letters. If you're not pleased with the standard of other readers' letters write in your own original comments and we'll make sure to publish them.

Secondly we prefer readers to write into us with answers, so that we can publish your replies on our letters page. Of course, if you want to write directly to certain readers we can forward your letters on them.

Thirdly star ratings are left to the reviewer's discretion but we do try to keep them standard. Our reviewing system will be changing from our March issue, and we hope that it will be easily understandable.

Finally, sorry! If software houses don't provide us with the full information sometimes we are forced to sacrifice some small details if we want to feature their review as soon as we can. We'll try not to do it again.

Bold and fingerless

I've just finished reading the latest Ventures article. Reviews of adventures are interesting, but not when they've been around a while. The three you reviewed have been done before, quite a while ago in fact. How about good new adventures? There must be some!

I did agree with your Scott Adams review. I had Adventureland for Christmas, keep me happy for ages, thanks I. It was finished before I went back to work. Very disappointing.

Level 9 produces the only adventures I've ever bought which really hold interest. I've done Snowball and Lords of Time, admittedly with a sneaky peak at a help sheet, and am currently cursing Colossal (What is the magic word?) I refuse to cheat on this one — well, not much anyway. Please, hint on that word?

Can't say I consider ventures as adventures at all. That doesn't mean I dislike them, I just don't consider they're adventures. Still, it takes all sorts!

Keep the tips flowing.

Liz Tomlinson, Havant

P.S. Before I'm the only bald-headed, finger-chewed mum in town, what is that magic word?

HCW needs you

Have you ever looked at the articles and programs in HCW and thought you could have written that?

Why not try? We welcome submissions from readers and are always interested in your ideas and suggestions

Submissions tend to fall into one of three categories...

Programs are always supplied on cassette and are accompanied by full details of the program variables Please type these details double-spaced. Listings are helpful, but not essential. What is vital is that the programs should be completely error free, so please double check.

Articles on certain aspects of using home computers should be no longer than 1000 words Try to keep to the style you see in HCW and include programming examples where they will help the reader understand the subject We will convert your sketched illustrations into final artwork

We also use **short** tips, articles and **brief** programming routines Any discoveries you have made about your machine might be of interest to other readers

All contributions are acknowledged and those accepted for publication are paid for at competitive rates The copyright in such work will pass to Argus Specialist Publications Ltd Keep a copy of your work and include a telephone number and an SAE Please label everything clearly with your name and the machine concerned

All contributions should be sent to:
Submissions
Home Computing Weekly
No.1 Golden Square London W1R 3AB

Programs are always supplied on cassette and are accompanied by full details of the program variables, how the program works and any hints on conversion you can offer. Please type these details double spaced. Listings are helpful but not essential. What is vital is that the programs should be completely error free, so please double check.

Always use a coupon firmly fixed to the back of your envelope, and fully complete and enclose the cassette inlay card.

We are particularly interested in programs with less than 100 actual lines of BASIC. All submissions are acknowledged.

Send your programs to HCW!

Use this cassette inlay card for your program

Name _____

Address _____

Expansion needed _____

Special loading instructions _____

Program title _____ Machine _____ Program submission _____

Complete this coupon and stick it firmly on the back of your envelope

Name _____

Address _____

Program title _____ Machine _____

EDDIE KIDD — ACE STUNT RIDER

Liz Graham spoke to Eddie Kidd, star of Martech's Jump Challenge. Read about the thrills and spills of being a motorbike superstar

Eddie Kidd is still going strong after 10 years performing motorbike stunts, and if you've had a go at Martech's Eddie Kidd Jump Challenge, you'll have begun to understand some of the hazards and problems he has to face when going for a record jump

Eddie was involved in the setting up of Martech's game, and he acted as advisor on some of the technical aspects He explained what can go wrong — and this is real life, not just on a computer screen

'One big problem is head winds, which you have to cope with,' he said 'You also have to sit correctly and have your balance just right '

He went on 'If you sit too far forward the bike will dip and you'll crash On the other hand, if you sit too far back, the bike tips up and you go over '

These aspects are reflected in Martech's game, although the element of risk isn't a fraction of the dangers Eddie faces each time he jumps Eddie's next big jump is at Carlisle, on March 17, and he's in intensive training for the event

'I work out at the gym every other day,' he explained 'I also go swimming, run and cycle 20 miles every Sunday I've got a special diet which I'm supposed to follow, but I haven't been sticking to it religiously '

The jump in Carlisle over the River Eden is a tricky one 'It's the worst one yet ' Eddie said 'The run-up's particularly difficult '

Eddie Kidd has been a professional motorbike stunt rider since he was 15 He's also been involved in several films, and is now branching out into the world of pop

'I'm writing some songs with a friend, and I've already made one record called Reggae Man, which has been released in Sweden I'm looking to set up a deal with a record company over here — I used to be with Decca Records '

Riding High is the film in which Eddie did his own stunts, it wasn't a box office smash, but is doing well on video He also starred in Hanover Street, with Harrison Ford and Christopher Plummer, as well as playing a part in Top Secret

Eddie owns a BBC computer, and he plays his own game on it, as well as Gold Mine 'I've had it since Christmas, and I must admit I do like playing my own game on it,' he confessed 'I've scored 39, but then I do have quite a lot of experience!'

He explained how to judge the speed of the bike 'I use the fuel and the geare, and from that I can estimate how fast I'm going I know, from my own experience, that it takes 100 yards run-up to jump 10 cars But on the game, you have to guess, because otherwise it would be far too easy '

You can improve your score on Eddie Kidd's Jump Challenge through trial and error, and learning from the results Eddie has seen the versions for the other machines, and he likes the Commodore 64 one best

'It's got some nice little touches You can move the man, and make him stand on the saddle There are some witty sayings when he ends up in hospital, as well '

'The Spectrum version is very difficult — it's the hardest one,' he went on 'Martech is holding a competition, and each month a player wins a video The winning scores on the Spectrum are much lower — if you manage 25, that's really going some, while on the BBC, scores of 33 have won '

As a skilled motorbike rider, Eddie finds it frustrating to have to go back to the beginning and start again on a BMX bike He thinks that's a bit unfair, and prefers to keep on trying with motorbikes, rather than go back to pedal power

And future plans on the software front include a planned follow-up with Martech Eddie is having talks with the company, but it's all under wraps at this stage

If you'd like to see Eddie Kidd in the flesh, go along to the opening of the motorbike fair at the River Eden, in Carlisle on March 17. No doubt it will make you realise how much safer and down to earth the computer game is, compared to the real thing!

PERIPHERAL

Vulcan's Gun Shot

JOYSTICKS AND INTERFACES

Fingers on the fire button — here's a review of Gun Shot and Vulcan joystick interfaces

Gun Shot
Atari connector £8.95

Vulcan Electronics, 200 Brent St, Hendon, London NW4

If your computer has an Atari style joystick connector, then this stick will work with your machine

It is an extremely well built and rigged stick with the now familiar gun-style handle This is fairly comfortable to hold, even over quite long playing sessions, but there isn't really any alternative hold possible With the ball type sticks there are a variety of possible holds so that you never get cramp

The stick is very positive indeed in all four main directions and the diagonal directions register well too With it's strong leaf switches this is one stick which is likely to survive even the hardest of games for a long time

The stick I used wasn't the rapid fire version, but there is one available The fire buttons are both well located and positive in reaction

The four sucker pads on the base give good adhesion, but they are in the way if you prefer to play with the stick hand held This is of particular importance if you use the lower fire button a great deal

The price of this stick is right and I will be using it for a number of alien bashing sessions in the days and months to come J B

Vulcan joystick interfaces
BBC B and Electron
£12/£19.95

Vulcan Electronics, 200 Brent St, Hendon, London NW4

Joystick interfaces might seem common place to those who have machines with the joystick facility built in, but they can make a vast difference to those using computers without the facility

These are both simple plug in connection boxes but both add facilities which the avid games player is likely to want

The Electron interface is fixed to the rear expansion connector and can't be inserted the wrong way round due to the use of a keyway There are two problems inherent in this type of product Firstly, once connected there are no further expansion possibilities available and secondly there is no support for the case from the machine itself

However, there are no problems with the interface's operation once connected and the tapes supplied are likely to give you full control over most games

The BBC already has an interface as standard, but this version allows you to use the excellent range of Atari style joysticks including those with rapid fire features The tape supplied with this interface has versions for those games which require ADVAL conversions too There is a switch on the top to allow you to select the horizontal direction as a number of BBC games are non-standard

Both products are well-built and should give a good lifetime's use particularly noteworthy are the metal connectors on the BBC version J B.

and joystick interfaces

TOP 20

Compiled by Gallup

SOFTWARE

Week Ending February 26, 1985

No real changes in the top three but a real surprise at number four this week

Yes, Football Manager is still there and to prove the point it keeps bobbing up and down the charts like a yoyo

New entries below number twenty are very few this week, just two Wally Weeks' new adventure, Everyone's a Wally, has come in at number 30 to make it two from Micro-Gen, Pyjamarama still holding on to 15 It all goes to prove that you can't keep a good Wally down

The other new entry is from Anirog, Slap Shot Based on the game of Ice Hockey this is yet another game to play on the cold evenings when you can't be bothered to get out of the armchair

The only other new chart entry is in the C64 chart, Lords of Midnight from Beyond It looks quite settled at the moment, but judging from the amount of software arriving on our desks this could all change soon.

THIS WEEK	MOVE	LAST WEEK	TITLE	PUBLISHER	PROGRAM	C64/64	ELECTRON	BBC	AMSTRAD	MSX	OTHERS
1	●	1	Alien 8	Ultimate	●						
2	●	2	Ghostbusters	Activision	●	●					
3	●	3	Raid over Moscow	US Gold	●	●					
9	▲	4	Football Manager	Addictive	●	●	●	●			●
6	▲	5	Booty	Firebird	●	●					
5	▼	6	Daley Thompson's Decathlon	Ocean	●	●					
14	▲	7	Starstrike 3D	Realtime Software	●						
11	▲	8	Combat Lynx	Durell	●	●	●	●		●	
20	▲	9	Manic Miner	Software Projects	●	●	●			●	●
12	▲	10	Elite	Acornsoft			●	●			
13	▲	11	Technician Ted	Hewson	●					●	
10	▼	12	Match Day	Ocean	●						
8	▼	13	Zaxxon	US Gold	●	●	●			●	●
22	▲	14	Blockbusters	Macsen	●	●	●	●			
24	▲	15	Pyjamarama	Mikro Gen	●	●				●	
18	▲	16	Flight Path 737	Anirog	●	●	●	●			●
17	●	17	Monty is Innocent	Gremlin Graphics	●						
27	▲	18	Frak!	Statesoft		●	●				
25	▲	19	Knight Lore	Ultimate	●						
19	▼	20	Airwolf	Elite	●						

SPECTRUM Top Ten

1. Alien 8 — Ultimate
2. Raid over Moscow — US Gold
3. Starstrike 3D — Realtime
4. Ghostbusters — Activision
5. Match Day — Ocean
6. Booty — Firebird
7. Monty is Innocent — Gremlin Graphics
8. Knight Lore — Ultimate
9. Airwolf — Elite
10. Technician Ted — Hewson

BBC Top Ten

1. Castle Quest — Micro Power
2. Elite — Acornsoft
3. Football Manager — Addictive
4. Manic Miner — Software Projects
5. Blockbusters — Macsen
6. Sabre Wulf — Ultimate
7. Combat Lynx — Durell
8. Frak! — Aardvark
9. Eddie Kidd Jump Challenge — Martech
10. Return to Eden — Level 9

COMMODORE Top Ten

1. Impossible Mission — CBS
2. Frak! — Statesoft
3. Ghostbusters — Activision
4. Raid Over Moscow — US Gold
5. Lords of Midnight — Beyond
6. Daley Thompson's Decathlon — Ocean
7. Slap Shot — Anirog
8. Hunchback 2 — Ocean
9. Combat Lynx — Durell
10. Booty — Firebird

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For details contact John Sarranti, Computer and Software Retailing, No 1 Golden Square, London W1R 3AB 01-437-0626

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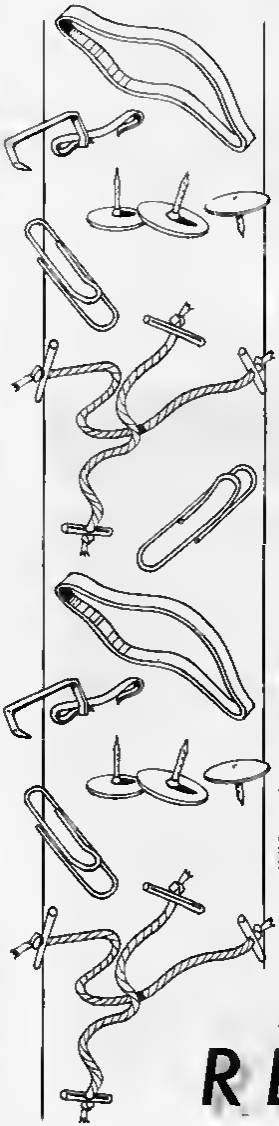

THE LAWS OF COMPUTING

This week we bring you a special article by reader Iain Murray. He takes a light-hearted look at computers — and where they go wrong

Ever wondered why things go wrong with your computer? Follow these simple rules and life will be much clearer

General rules

1 Murphy's law — anything that can go wrong will go wrong
2 Sod's law — when something does go wrong, there's sod all you can do about it
3 Murphy's law of thermodynamics — things get worse under pressure
4 In every case, Murphy's law supercedes all others

General laws of hardware

1 Interchangeable parts won't
2 On soldering the last wire on to a connector, it will be discovered that the connector cover hasn't been fitted over the wire
3 When the last of 10 screws has been removed from a cover, it will be discovered that the wrong cover has been removed
4 When the last of 10 screws has been fitted back into a cover, it will be discovered that the gasket has been left out
5 It works better if you plug it in

General laws of programming

1 All constants are variables
2 A decimal will always be misplaced
3 Build a system even a fool could use, and only a fool will want to use it
4 If you put garbage into a computer, nothing comes out but garbage However, having passed through a very intelligent machine, this garbage is somehow dignified and no-one dares criticise it
5 Once a job has gone wrong, anything done to improve it only makes things worse
6 To err is human, but you need a computer to really foul things up

Farbe's laws of data processing

1 In any collection of data, the figure most obviously correct and hence exempt from checking, is the mistake
2 Nobody you ask for help will see it
3 The first person to stop by, who knows nothing about your work, will spot it immediately

Stevenson's thearems

1 Any given program, when running, is obsolete
2 If a program is useful, it will have to be changed
3 If a program is useless, it will have to be documented
4 Any given program will expand to fill all available memory
5 Program complexity grows exponentially until it exceeds the capacity of the programmer who must complete it

Nisbet's laws of documentatian

1 If documentation should exist, it doesn't
2 If documentation does exist, it is out of date
3 Only documentation for useless programs supercedes the first two laws
4 The probability of documentation existing for a given program is inversely proportional to the usefulness and complexity of the program

Happer's laws of computer languages

1 BASIC isn't
2 FORTRAN didn't run far enough
3 Make it possible for programmers to write in English, and you will discover that programmers cannot write in English

Cunningham's laws af error trapping

1 You can make it foolproof, but you can't make it damn-foolproof
2 Never test for an error condition you don't know how to handle
3 At the source of every error which is blamed on the computer you will find at least two human errors, one of which is the error of blaming it on the computer
3 Don't worry if it doesn't work right first time If it did, you'd be out of a job

Think of your family tonight Go and talk to them the next time the computer crashes
And remember

Old programmers never die, they just branch out to a new address

Solution to last week's puzzle

The answer is six
Opposite numbers on a die add up to seven. In each line the numbers on the opposite side of each die add up to the total shown. Thus, on the top row, 2 is opposite 5, 4 opposite 3 and 6 opposite 1, which gives 2 + 4 + 6 = 12.

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